PENNSYLVANIA
TECH ACCELERATOR

PRESENTATION
NOT FOR
DISTRIBUTION

Welcome to the Accelerating Technology Solutions Training

Pennsylvania Tech Accelerator Partners

pennsylvania
DEPARTMENT OF HUMAN SERVICES

Office of Developmental Programs
Office of Long-Term Living

State of the States
In Intellectual and Developmental Disabilities

Temple University
College of Education

Institute on Disabilities

KU CENTER ON DISABILITIES

Agenda

- Welcome and Introductions
- Breaking down Barriers and Creating Solutions Through Access to Mainstream and Emerging Technology Solutions
- Identifying Technology Solutions Using a Person-Directed Approach to Goal Setting
- Leading a Culture of Innovation

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Abandoned Technology

Smart Coffee Heater

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Breaking Down Barriers and Creating Solutions

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Goal

Change the way you think about technology for people with disabilities.

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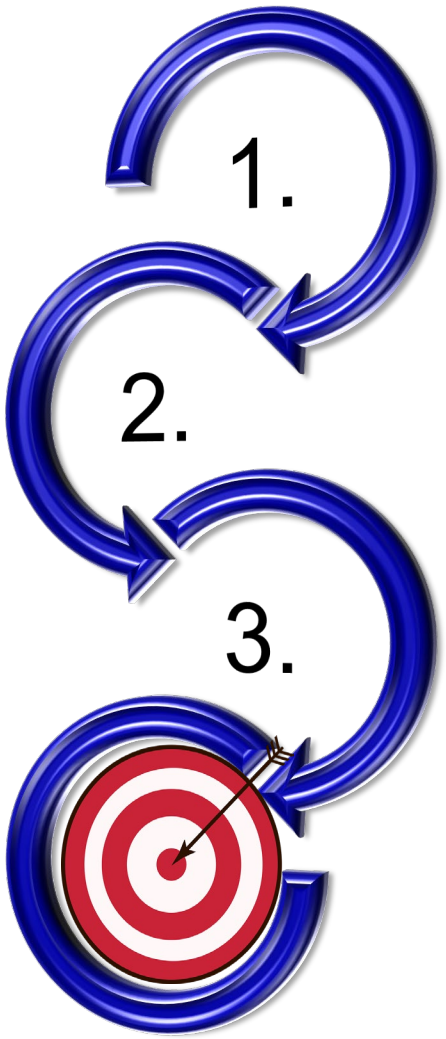

1. Demonstrate need and address barriers.

2. Provide the tools to do it.

3. Demonstrate ways to innovate and keep moving forward.

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

Technology Stats

393 billion

In 2026, 393 billion emails will be sent daily worldwide (Statista & Email Statistics Report, 2023)

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Technology Stats

97%

Over 97% of money in circulation is digital
(Harvard Business Review, 2021)

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Technology Stats

$1.24 trillion

Americans spent $1.24 trillion in online sales in 2023 (CapitalOne Shopping Research, 2025)

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Technology Stats

$203.8 billion

The e-learning market is forecasted to reach $203.8 billion U.S. dollars in 2025 (Statista, 2025)

Technology Stats

5.24 billion

Total number of active social media users globally (Statista & KEPIOS, 2025)

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Technology Stats

50% ↑

50% increase in online prayer searches in February 2020 from Google Search Data (Telegraph, 2020)

Technology Stats

66.2%

66.2% of U.S. employers allow employees to work remotely at least once a week

(U.S. Career Institute, 2024)

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Technology Stats

$9 trillion

The global wellness economy is expected to be valued at $9 trillion by 2028

(Global Wellness Institute, 2024)

Technology Stats

6 hours and 38 minutes

Average daily time spent on the internet was 6 hours and 38 minutes in Q3 2024

(Statista & KEPIOS, 2024)

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Technology Stats

#1

Wearable technology was the #1 fitness trend worldwide in 2025 (ACSM, 2025)

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Technology Stats

20 billion

Over 20 billion IoT connected devices worldwide predicted for 2025

(Statista & Transforma Insights, 2024)

Technology Stats

52%

52% of business-to-business marketers report using artificial intelligence (AI) to create content (Statista & Sagefrog, 2024)

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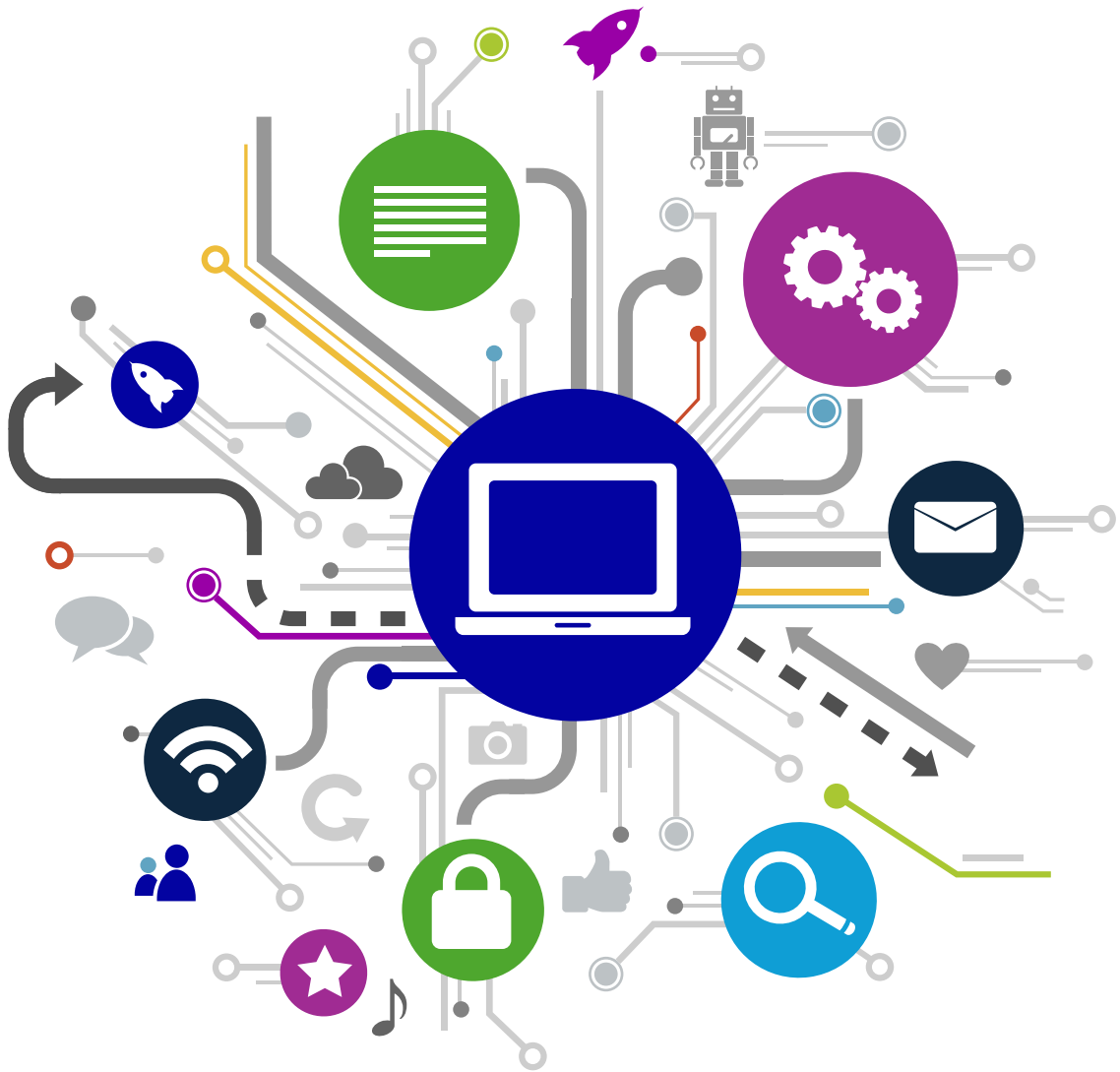
Why do we seek technology solutions?



- Normalization
- Symbol of Status
- Community
- Motivation

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Why does the technological divide persist for people with disabilities?

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Barriers to Technology Adoption for People with Disabilities

- Attitudinal barriers
- Cost and financial burden – cycle of poverty
- Family support and training
- Privacy, security, and safety
- On-demand technical support
- Knowledge of currently available technology and applications
- Service professionals lack of knowledge about technology solutions
- Personal discomfort with technology

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What are the barriers you face in considering technology solutions for the people you serve?

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Challenges faced by practitioners when advancing technology solutions?

- Training in accessible technology solutions and allocated time for training
- Training for users
- Increased demand
- Incentives to focus on technology
- Administrative or management support
- Turnover of staff
- Immediate access to technology solutions
- Linking technology to outcomes and measurement
- Reimbursement strategies
- Cultural competence
- On-demand technical support and maintenance
- Privacy, security, and safety concerns

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Collective Genius

How can we solve the problems?

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Problem #1: Funding for Technology By Authority

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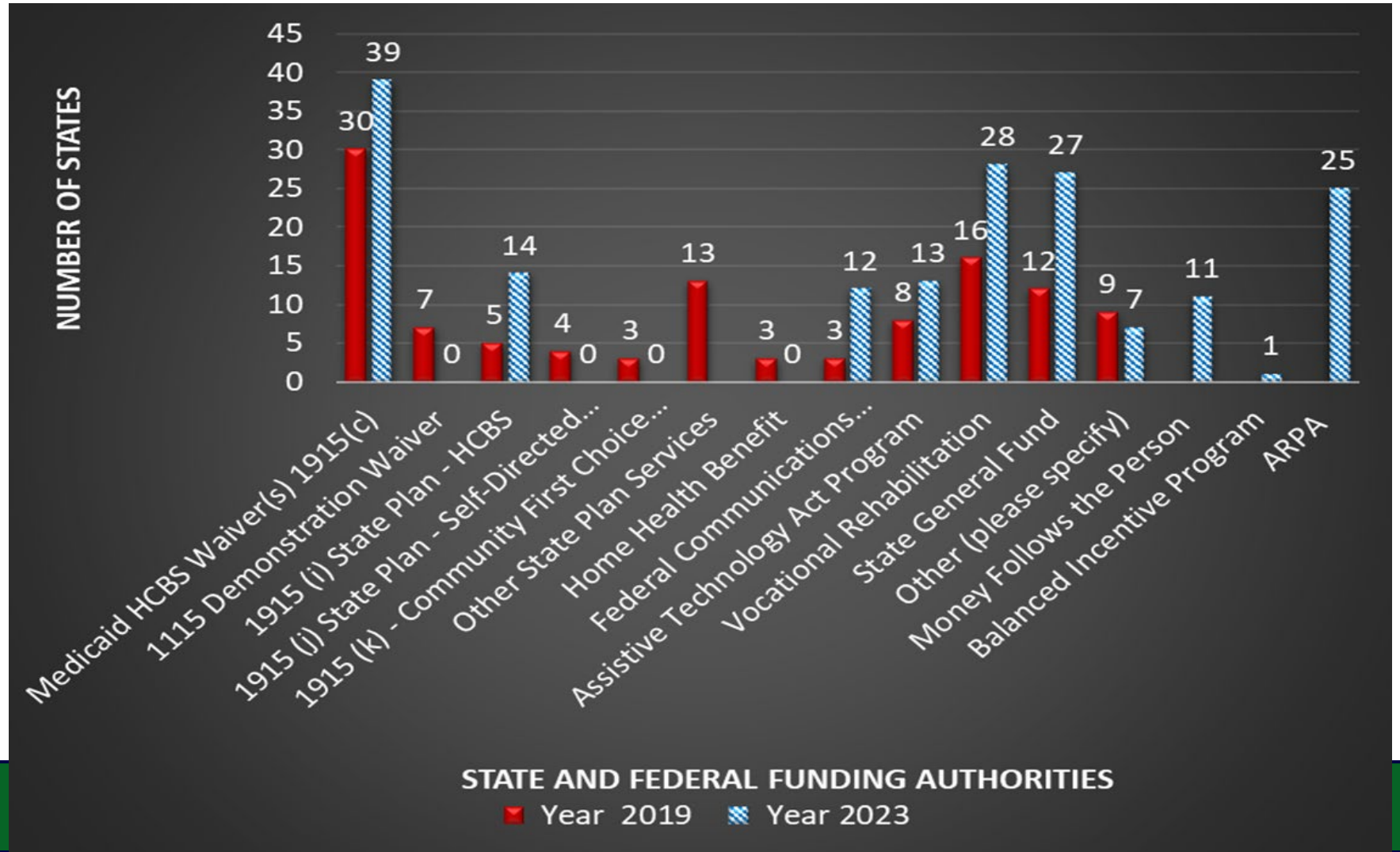

Problem #1: Funding for Technology Solutions

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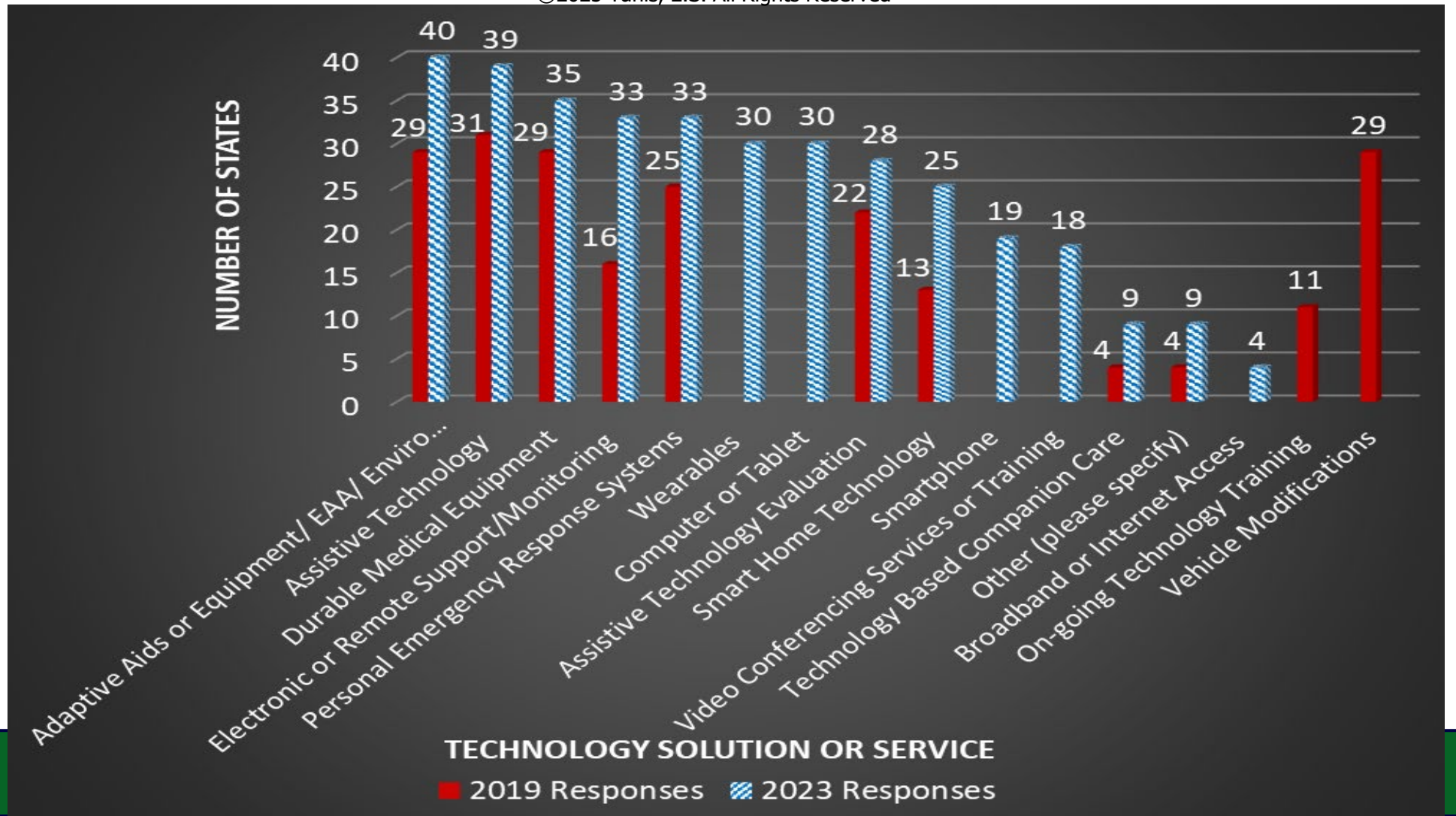

Problem #1: Funding Resources

- Assistive Technology Services AT Act – State financing
- PA Office of Developmental Programs – myodp.org
  - Technology Funding and How to Get it with Julie Mochon

  Funding and How to Get It | Institute on Disabilities | Temple University Institute on Disabilities
- Foundations
- Grants
- Corporate programs

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Problem #2: Privacy, Security, and Safety

- What is the most critical concern (victimization, information sharing, etc.).
- Can the risk be mitigated?
- How can we education people to navigate risk?
- Are there ways to scaffold training about security and privacy?
- Dignity of risk.

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Dignity of Risk

"Overprotection may appear on the surface to be kind, but it can be really evil. An oversupply can smother people emotionally, squeeze the life out of their hopes and expectations, and strip them of their dignity. Overprotection can keep people from becoming all they could become. Many of our best achievements came the hard way: We took risks, fell flat, suffered, picked ourselves up, and tried again. Sometimes we made it and sometimes we did not. Even so, we were given the chance to try. Persons with special needs need these chances, too. Of course, we are talking about prudent risks. People should not be expected to blindly face challenges that, without a doubt, will explode in their faces. Knowing which chances are prudent and which are not - this is a new skill that needs to be acquired. On the other hand, a risk is really only when it is not known beforehand whether a person can succeed…"

Problem #3: Knowing what technology is available?

- Do not need to know all the technology out there.
- Build a knowledge network.
- Know your resources.
  - TechOWL - Home - ATAP
  - Membership Directory - Assistive Technology Industry Association
  - CTIA Access Wireless – GARI – Global Accessibility Reporting Initiative
  - Tech Toolbox™ The Arc U.S.
  - Make Life Easier with Helpful Apps | BridgingApps
  - Wyoming - Tech2Connect
  - Community

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- The use of trade, vendor, or product names within this presentation is for user information and does not imply endorsement by the University of Kansas, State of the States project, or partners in the Technology Accelerator program.

- Invite you to attend the Tech Summit Vendor Showcase Room to have hands-on experience with technology solutions

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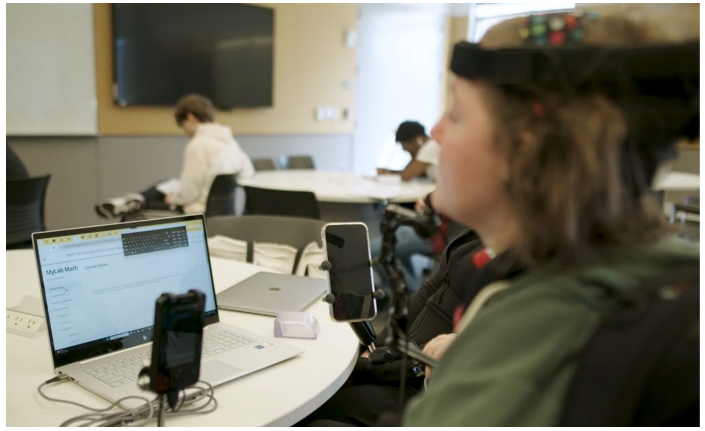
Daily Life & Employment

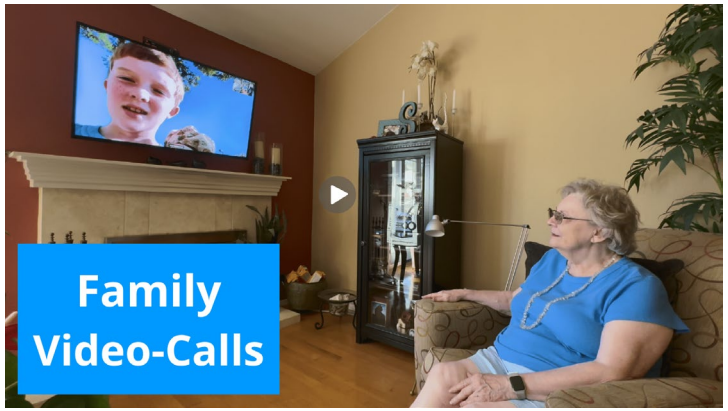


Mouth Switch

Integrated Sign Search

Haptic Navigation

Task Portfolio



Simplified Video Calls

Voice Speaker

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Community Living

Robotic Navigation

Wheelchair Car

AR Eyewear

Switch Door

Ring Switch

Automated Blinds

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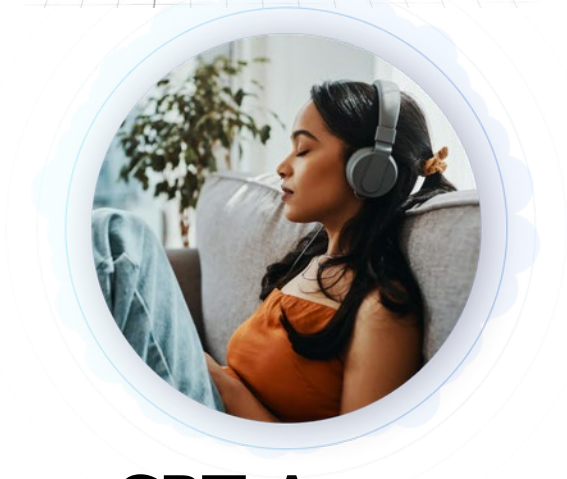
Healthy Living

Gait Training

Follow-up Care



CBT App

Med Dispenser

Smart Oven

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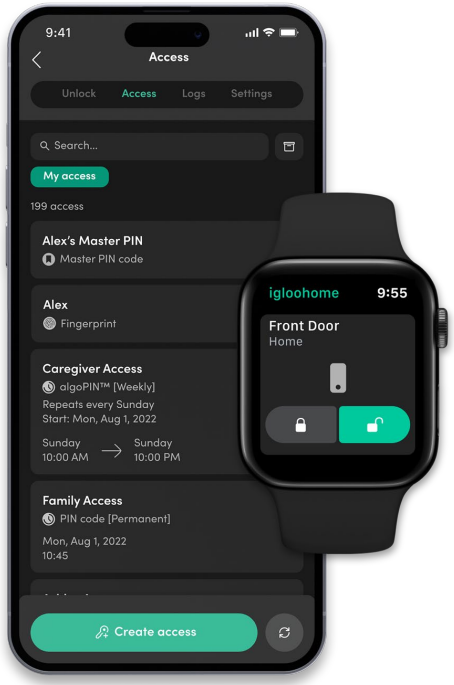
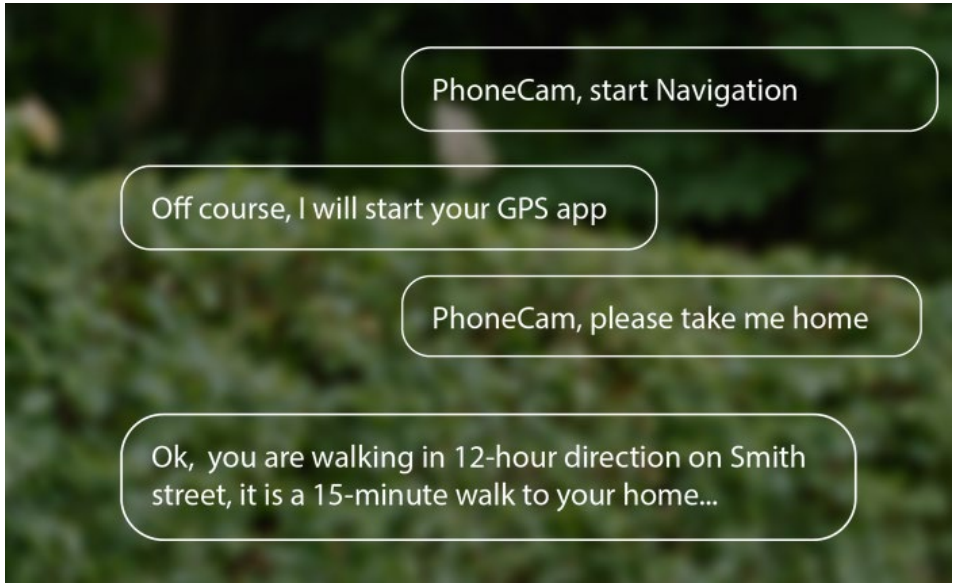
Safety & Security

Phone Light



Smart Locks



AI Navigation

Smart Lock for Guests

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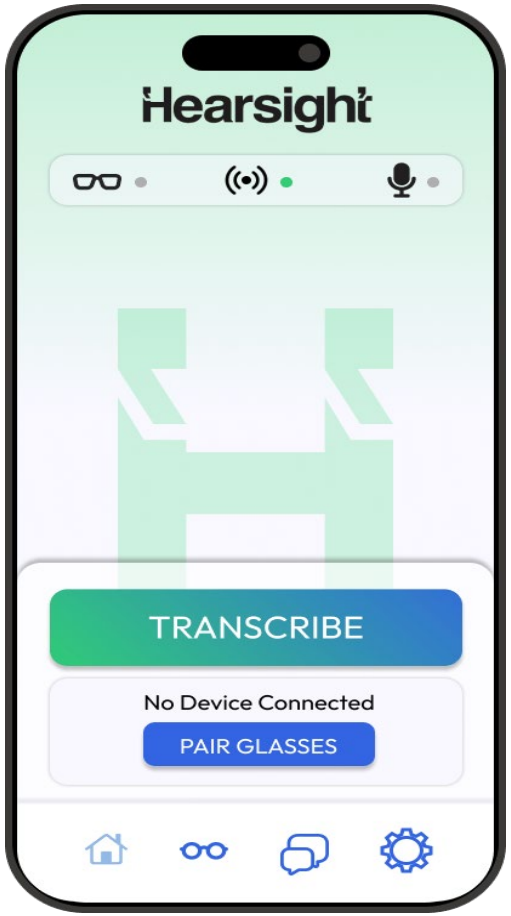
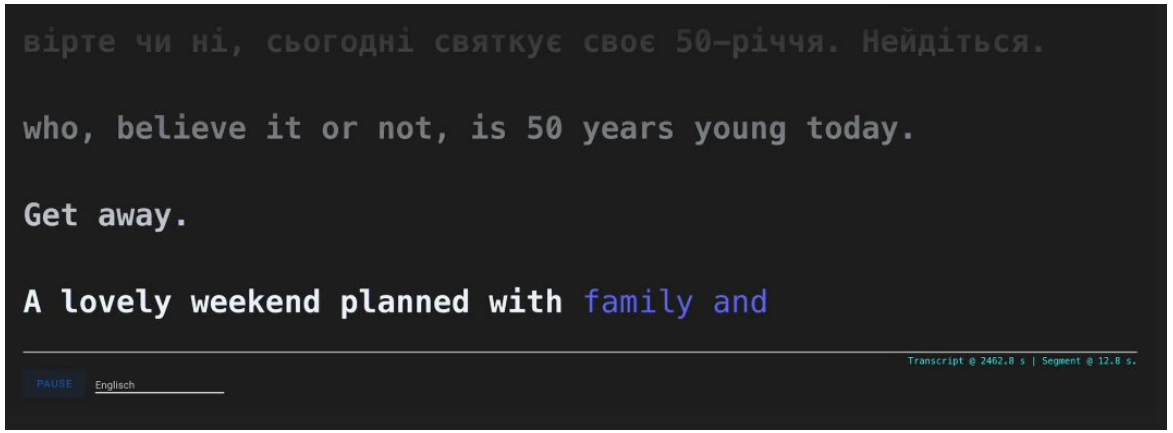
Social & Spirituality

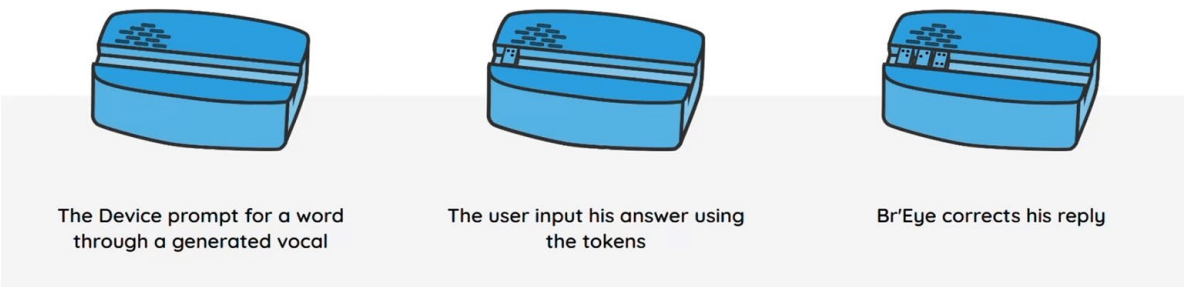


Smart Glasses for Captioning



Radio Captioning

Music Blocks



Braille Gamified

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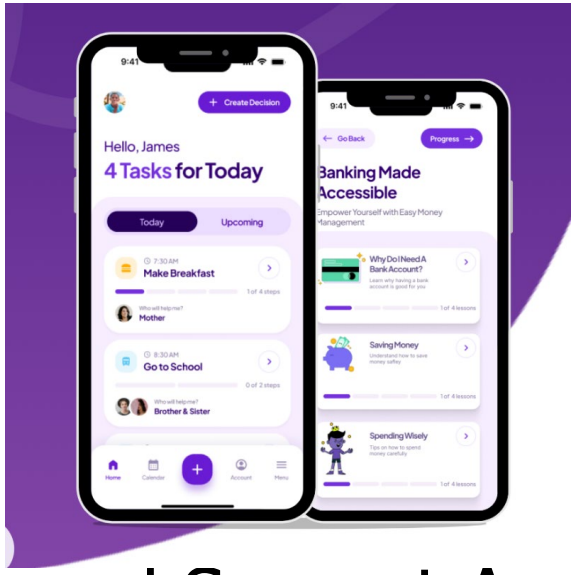
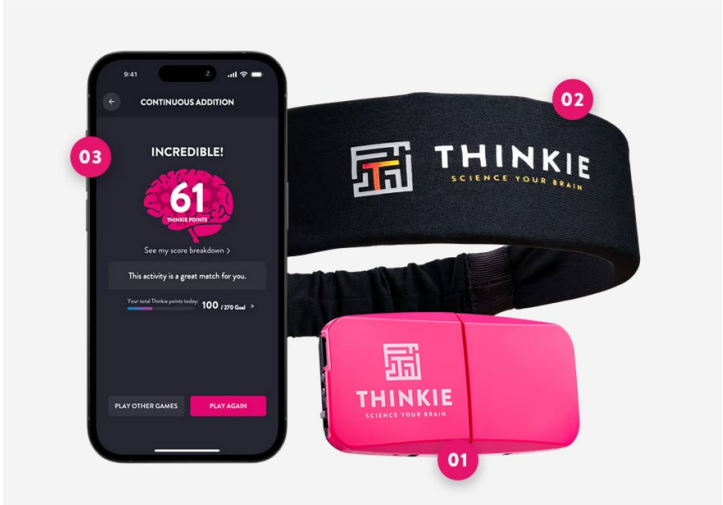
Advocacy & Engagement



Task and Support App



Brain Scanner

Access App

Cognitive Fitness Trainer

Gesture Switch

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Remember Abandoned Technology

Smart Coffee Heater

Don’t be distracted by the “shiny and new”

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Identifying Technology Solutions Using a Person-Directed Approach to Goal Setting

Barriers that prevent advancement of access to technology solutions – Provider response

1. Financial resources (64% in 2024)
2. Reimbursement of services (63% in 2024)
3. Knowledge of available and emerging technologies (57% in 2024)
4. Training on available and emerging technologies (50% in 2024)

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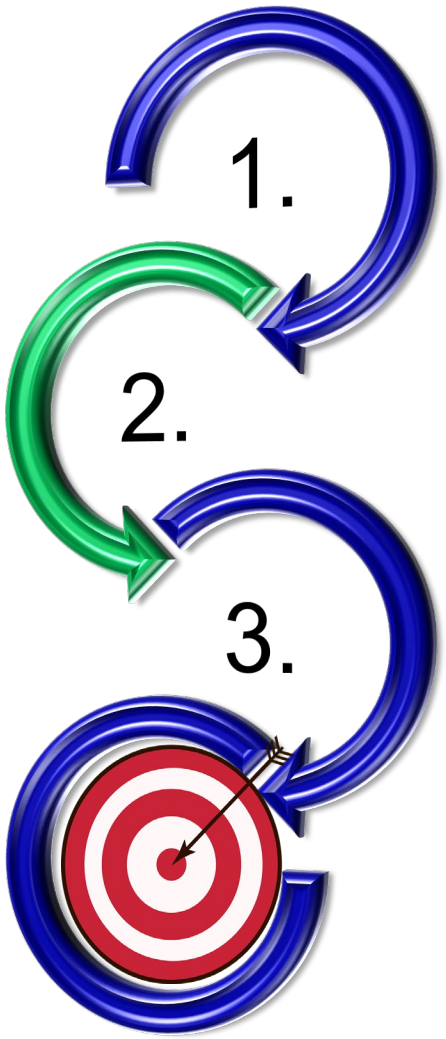

1. Demonstrate need and address barriers.

2. Provide the tools to do it.

3. Demonstrate ways to innovate and keep moving forward.

Jacob

Think Differently

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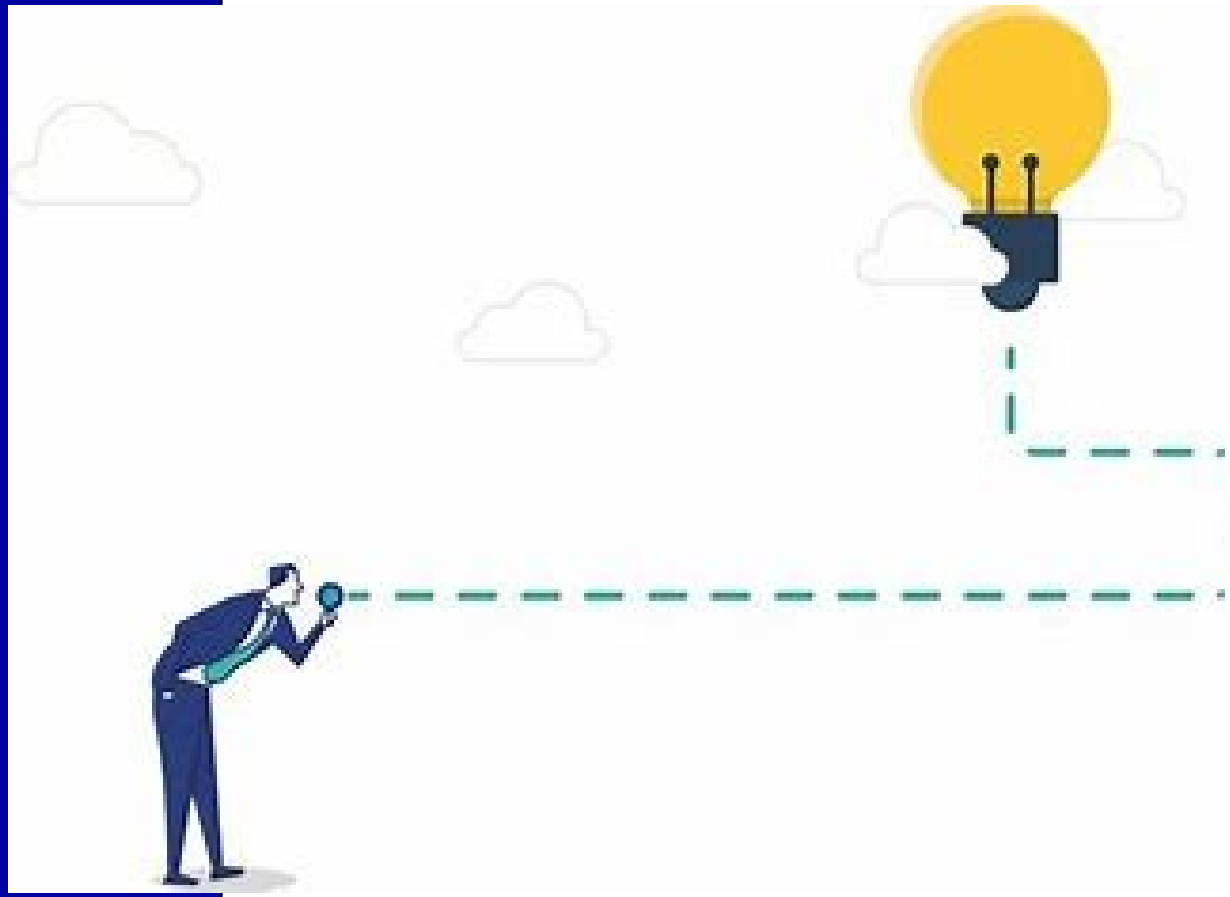
How to…



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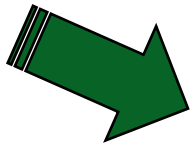
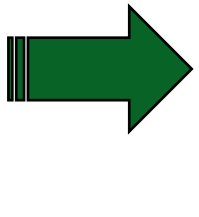
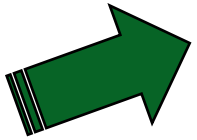
Role of Technology

Environment





Technology Solution



Personal Competencies

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Technology Solution

An innovation applied in the environment to address a mismatch in cultural , social, or contextual demands

- The term is an umbrella term (captures, mainstream, assistive, and enabling technologies)
- The term technology solution allows for the inclusion of multi-functional and diverse technologies
- The term implies a person-directed and goal-oriented approach to the identification, acquisition, and on-going training of technologies
- The term supports the development of solutions to eliminate the mismatch between the person and environment
- The term allows for the inclusion of emerging and future technologies not yet identified to be supported through policy and practice

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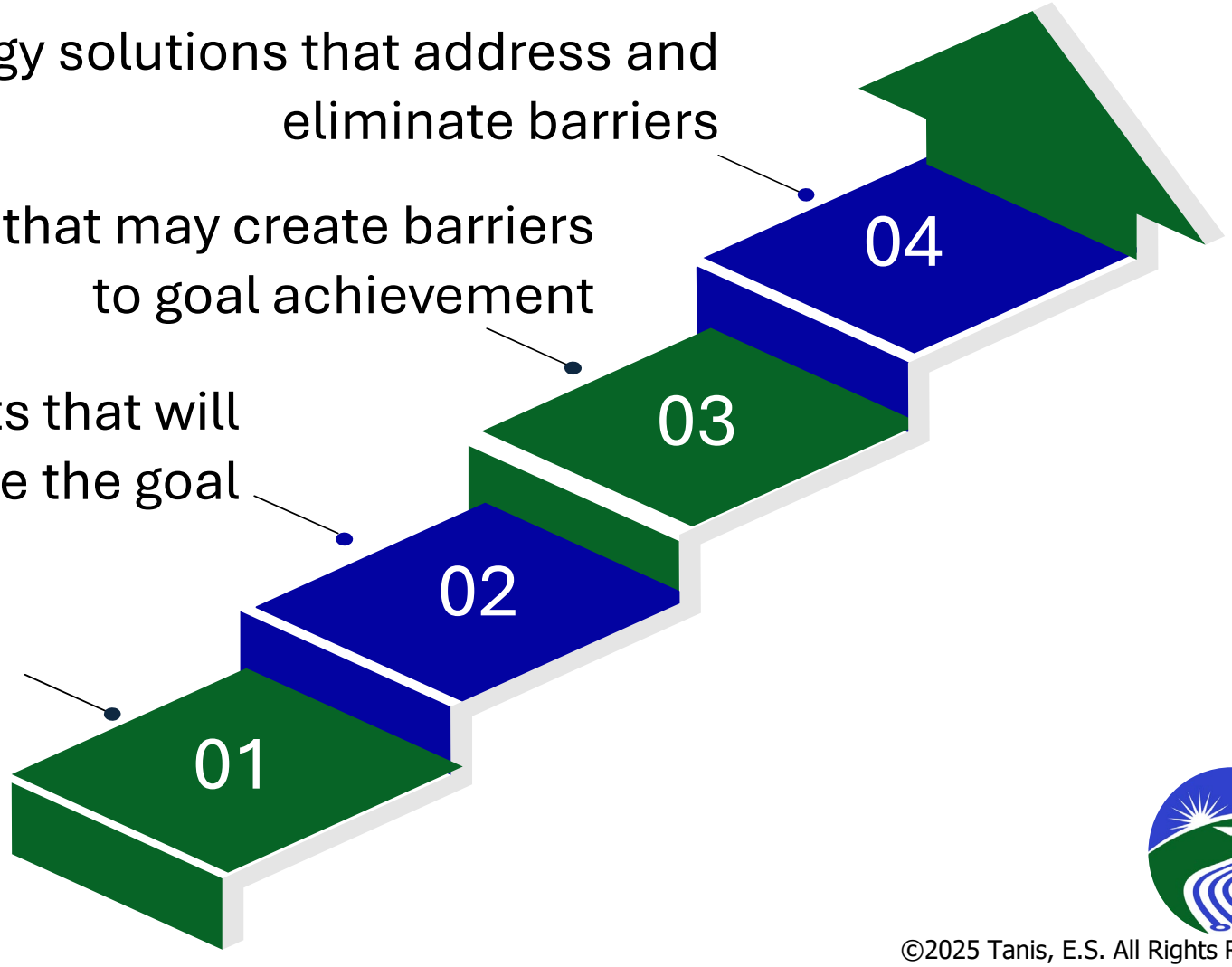
Person-directed process for identifying technology solutions

4. Search for technology solutions that address and eliminate barriers

3. Identify environmental demands that may create barriers to goal achievement

2. Identify personal strengths/assets that will help achieve the goal

1. Individual goal setting



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Example

Grace

Grace is a young woman in her 20’s who lives at an intermediate care facility. She is 6’2 weighing over 200 lbs. She is assigned a 2:1 staff to patient ratio. Due to her significant aggressive and self-injurious behavior, she is limited to her options in leaving her residential building. She has several staff that she enjoys working with and some she does not. She loves soothing music, getting outside in the spring, and spending time with loved ones.

The goal for her is to get more of those three things. What technology solutions can address her goals.

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Wheelchair Airbag Research

Fukaya, Kiyoshi & Uchida, Mitsuya. (2008). Protection against Impact with the Ground Using Wearable Airbags. Industrial health. 46. 59-65. 10.2486/indhealth.46.59.

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Activity

Given a user case. Solve the problem with one or more technology solutions.

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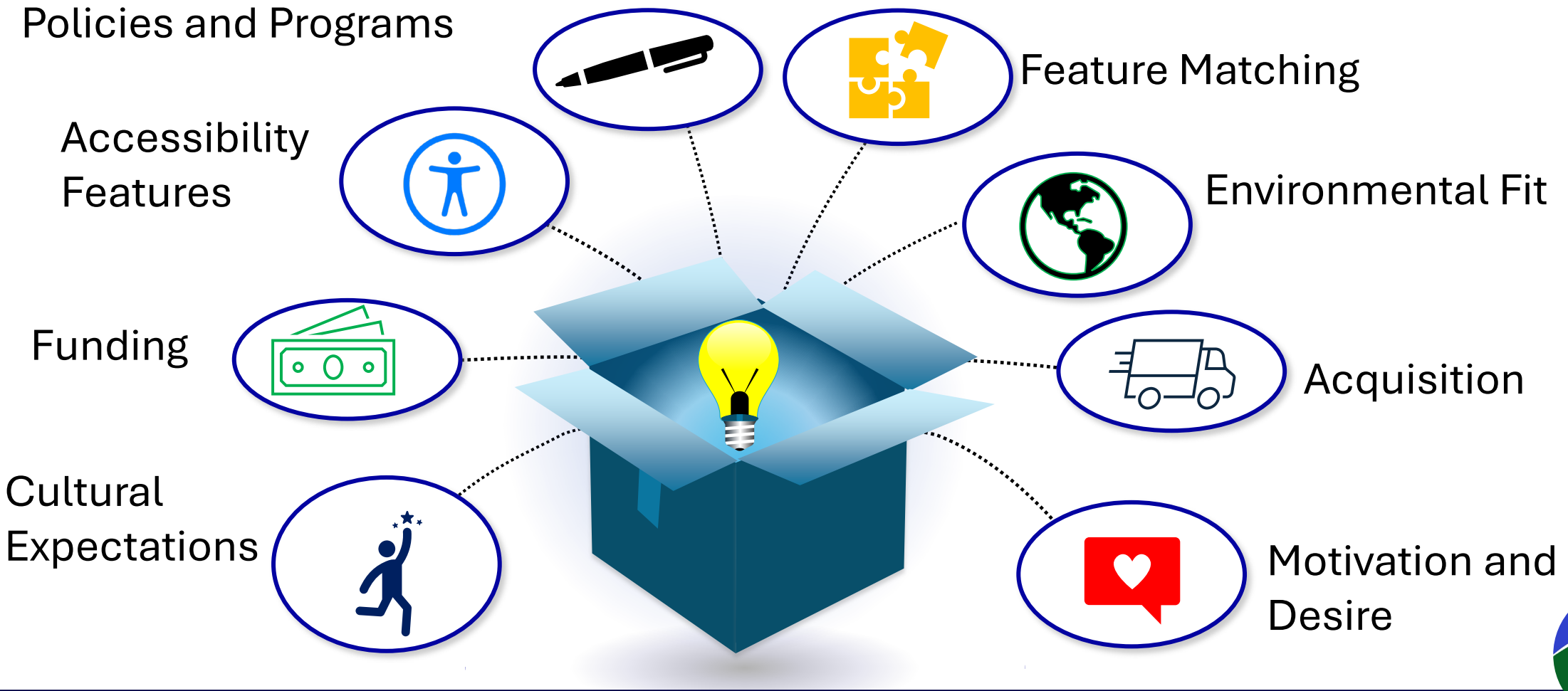
Considerations



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Leading a Culture of Innovation

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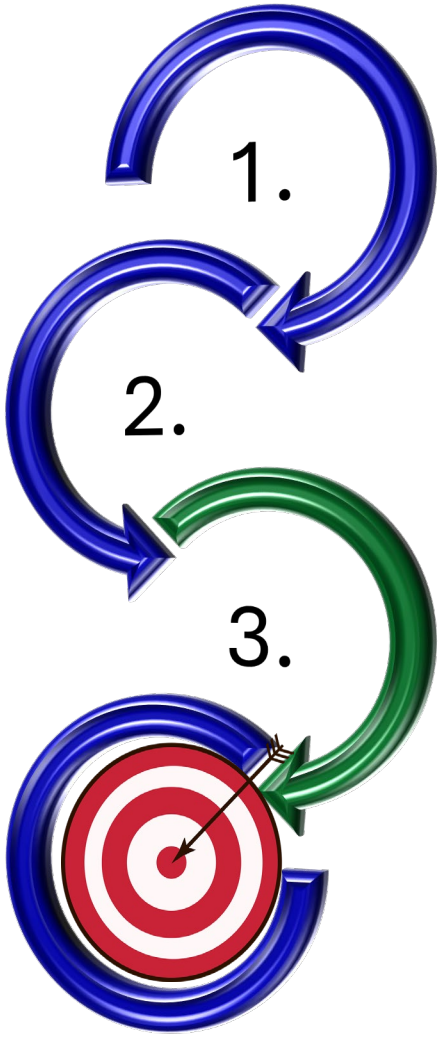

1. Demonstrate need and address barriers.

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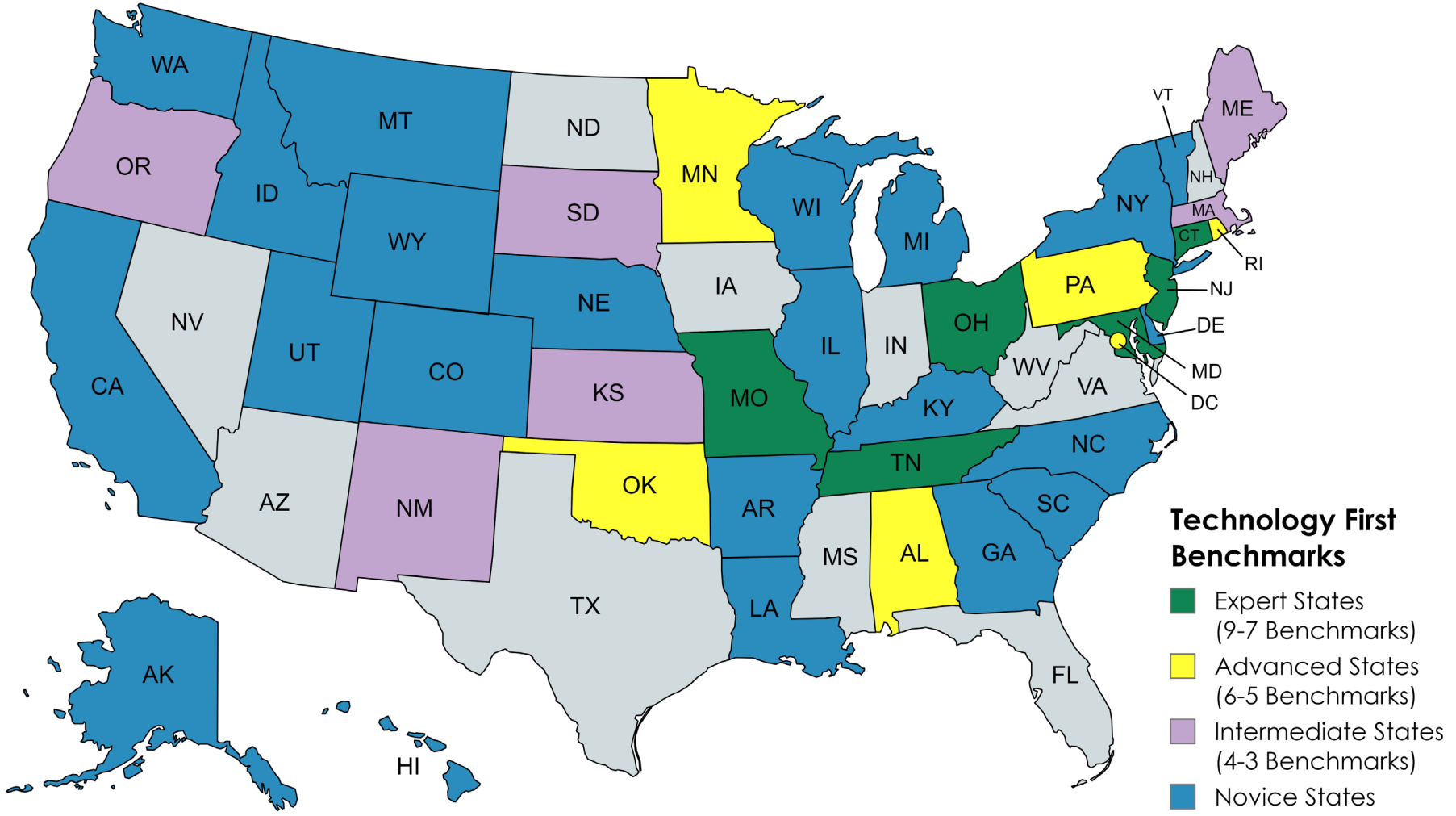
Technology First Systems Change



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State trends in technology initiatives

Virtual Job Coach Training

Smart Home Models

Remote Supports

Telehealth Solutions for Reducing Emergency Room Visits

Technology Training for Users, Families, and Direct Support Professionals

Connected Communities

Emerging Technology Investigations (ex. AI, Mixed Reality)

Technology Summits

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Innovation –

The introduction of something new.

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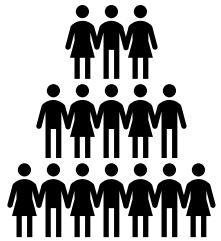
Where to start?



Organization

- Culture of innovation - myth-busting and risk-taking
- Investment in training and exploration
- Procure accessible technology
- Begin with “gateway technology”

Individual

- Requirement in ISP
- Person-directed process for acquisition
- Establish training in technology competency, agility, and resiliency
- Foster leadership and peer training

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ability
possibilities
opportunities
limitless
beyond

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

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What's next on the national scene?

- National implementation of Technology First Systems Change
- Modernization of state and federal technology-related policies
- Evidence-based knowledge on emerging technologies and people with ID/DD through research
- Creation of innovation hubs to work with industry
- Transformative and ongoing technology training for consumers, professionals, and caregivers.
- Impact analysis of technology solutions on quality of life, ethics of technology adoption (ex. AI), and data equity

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"In this era of 'becoming,' everyone becomes a newbie. Worse we will all be newbies forever." – Kelly

"What is needed to survive in our technologically evolving world is the capacity to adapt." - Hopper

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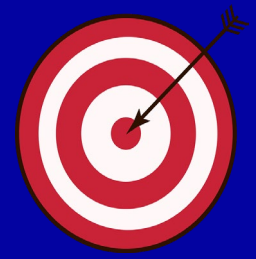
How do you think about technology now?



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