



The People's University

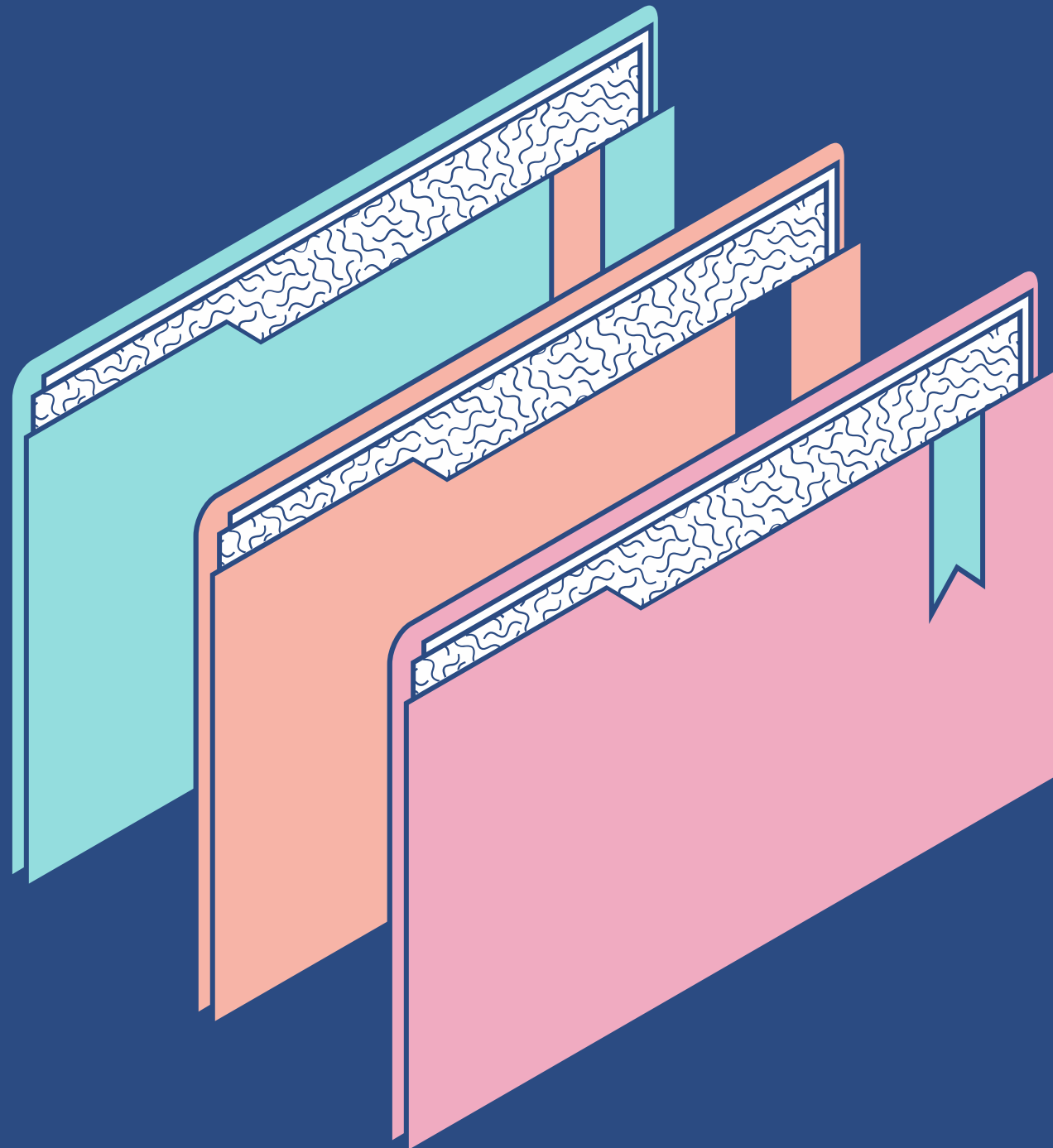
Libraries as Essential Centers
for Technology Education



Wilkes
County Public Library
A happy part of
Appalachian
REGIONAL LIBRARY

Jess Quick
she/her

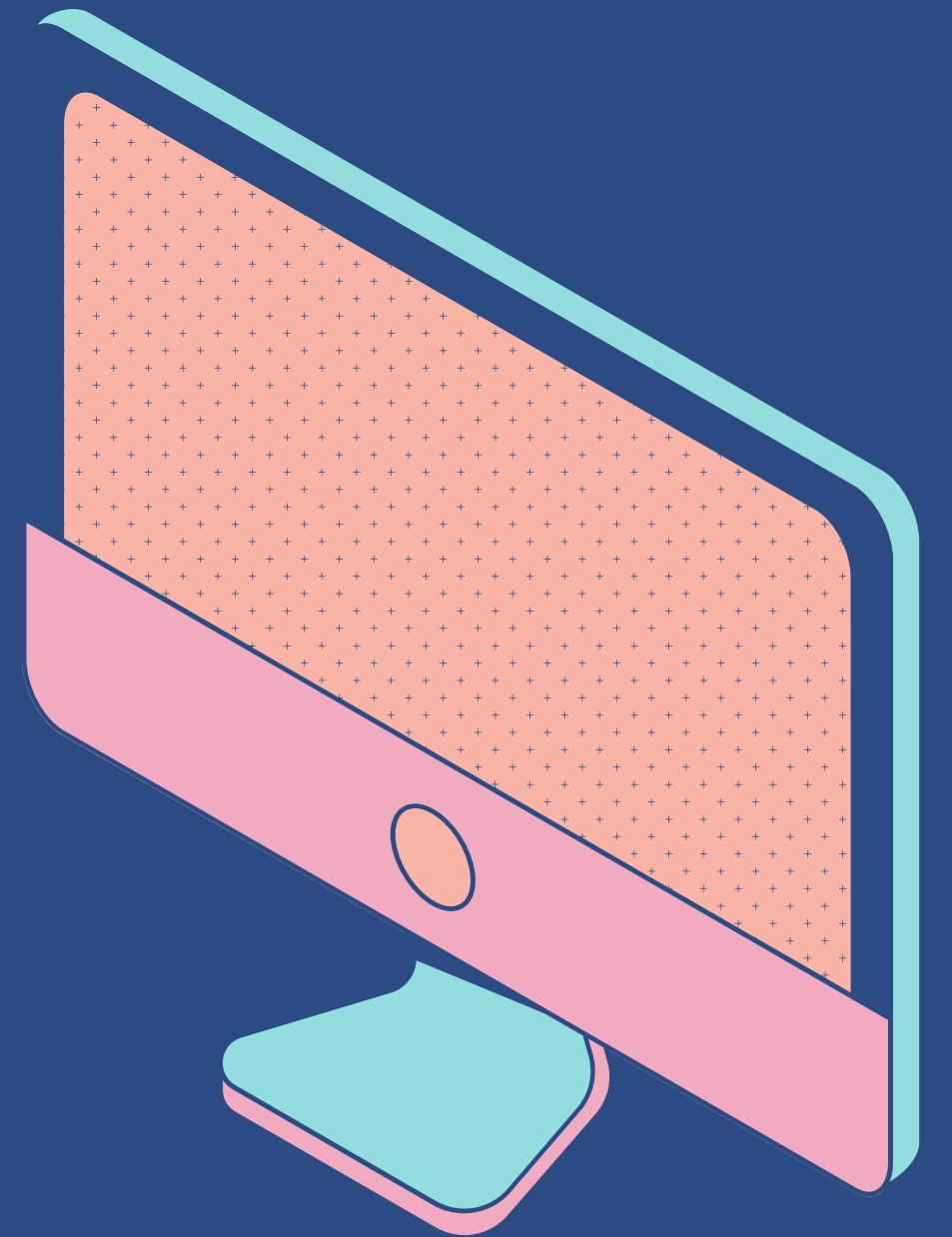
Adult Services Specialist for the Wilkes
County Public Library, part of the
Appalachian Regional Library system



Agenda

1. Libraries' responsibility to digital literacy
2. The psychology of adult learning
3. What technology fluency *really* looks like
4. Creating effective learning environments
5. Fostering growth mindsets
6. Universal design for learning
7. Digital resource pack

libraries' responsibility to
DIGITAL LITERACY



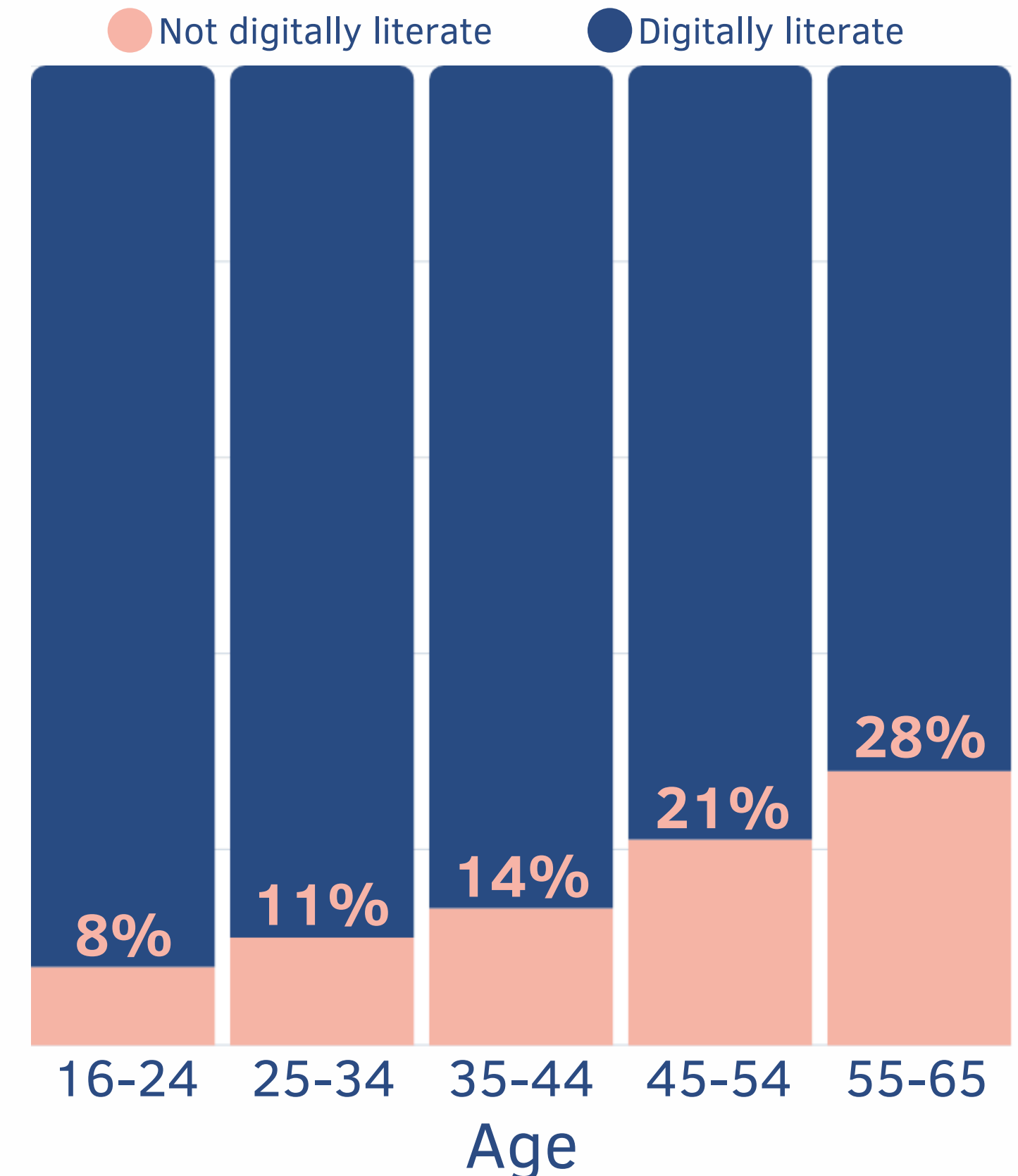


The State of Digital Literacy in the US

2012 DATA

A 2018 report from the Department of Education (drawing from 2012 data) presents metrics on the prevalence of digital illiteracy in the US.¹

Broken down by age group, the disparity of technological fluency is evident. Over a quarter of the oldest surveyed (28%) scored below the literacy level, and only the youngest age group represented had an illiteracy rate below 10%.



1. Mamedova & Pawlowski, 2024.

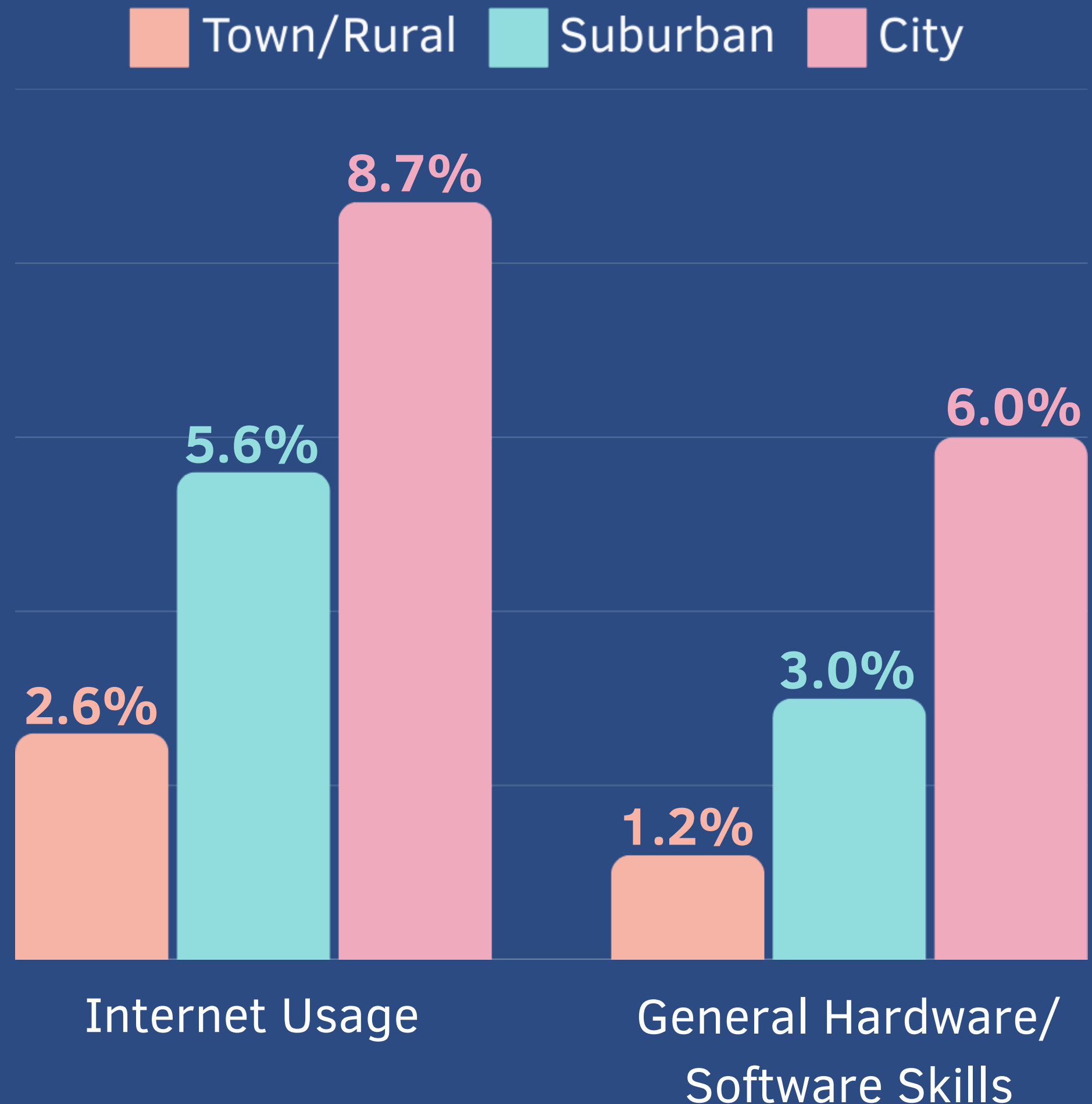
Formal Digital Literacy Training

2023 DATA

In 2023, the Public Library Association conducted a technology survey. Part of their findings measured how many libraries offered formal technology training (classes, programs, appointments) to patrons.²

Out of 1,500 libraries surveyed nationally, what percentage of rural, suburban, and city libraries do you think offered formal education opportunities for basic internet usage and general computer hardware/software skills?

2. Mamedova & Pawlowski, 2024.





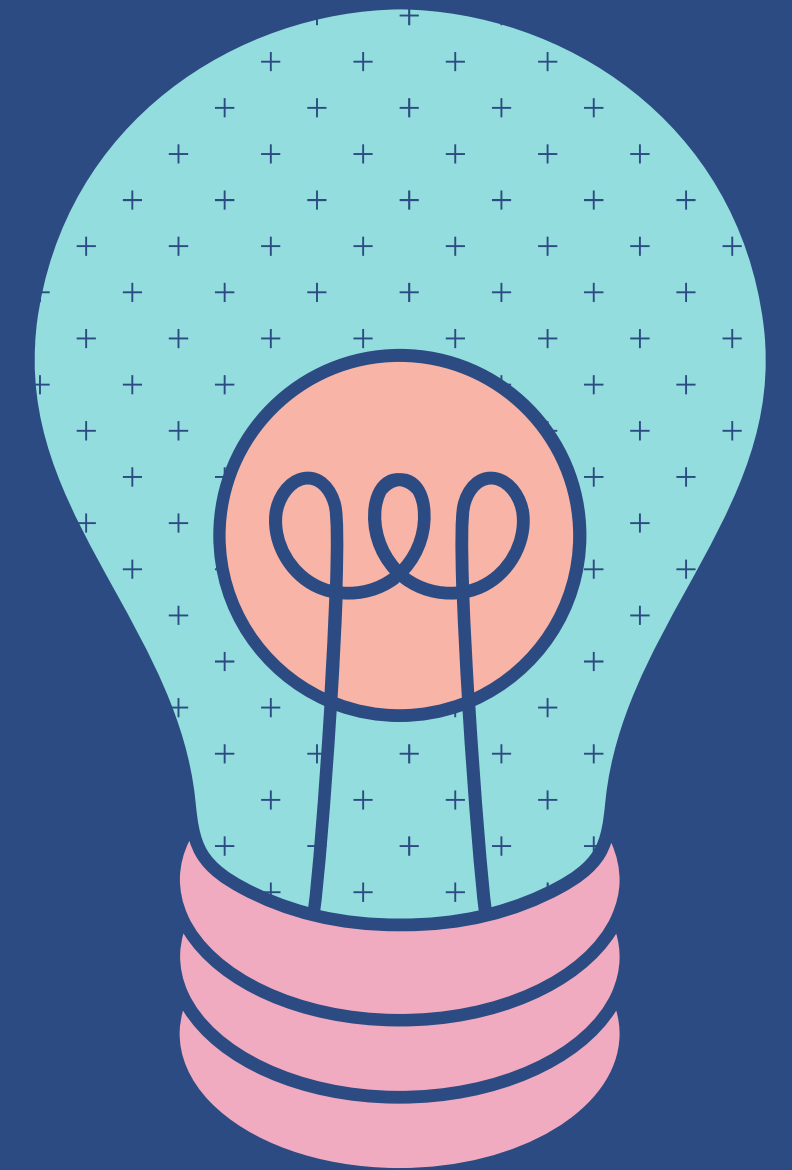
The Library Imperative to Provide Technology Education

Aside from the stats, we all have qualitative, anecdotal data that attests to the widespread need for structured technology education opportunities for our patrons.

Digital literacy is essential in this 21st century Information Age, and community members who lack these skills are at a significant disadvantage.

...but where do we start?

the psychology of
ADULT LEARNING



Reaching Our Target Demographic

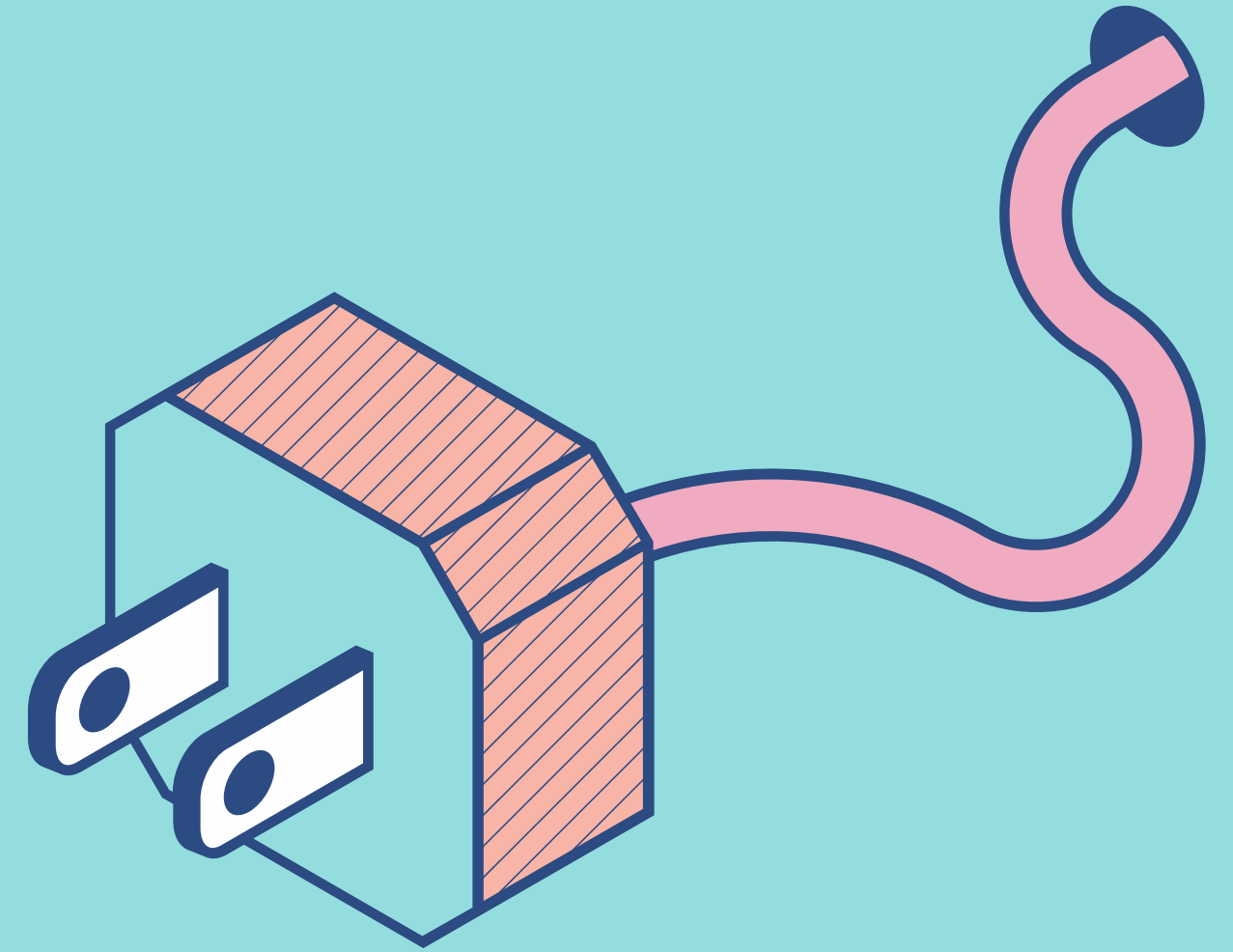
There is a prevailing myth that adults are harder to teach because they either can't learn or don't want to. This is simply not true, and the percentage of older adults engaging in education activities has been steadily rising for years.³

The key is understanding how adult learning works so that we can design effective technology learning experiences for our patrons.

Educator Malcolm Shepherd Knowles (1913-1997) popularized the theory of andragogy, a counterpart to pedagogy that he described as the art and science of adult learning.⁴

3. Merriam & Baumgartner, 2020.

4. Cloke, 2024.



“Adults have a deep psychological need to be generally **self-directing.**”





Need to Know

Adults need to see the practical value of learning, which increases motivation and engagement by addressing skills gaps and relevance.

Self-Concept

Adults prefer self-directed learning, valuing autonomy, independence, and the ability to manage their own learning process.

Adult Learner Experience

Adults bring prior experiences to learning, requiring tailored training programs based on their existing knowledge and skills.

Readiness to Learn

Adults are eager to learn when the content is relevant to their goals, making clear communication and engagement essential.

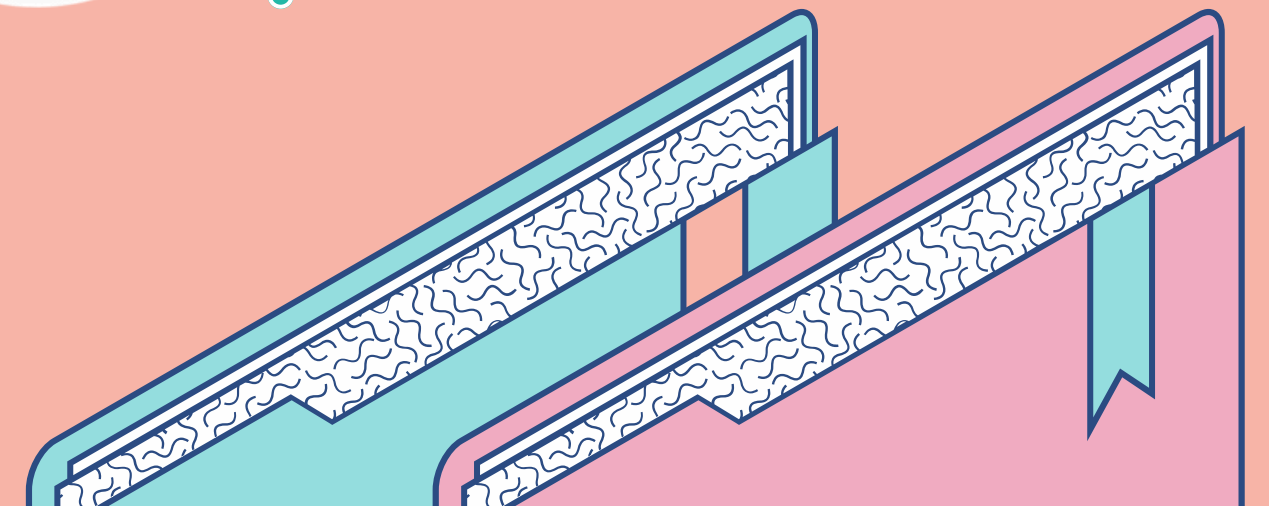
Orientation of Learning

Adults prefer practical, problem-centered learning, focusing on real-life applications and skills to solve challenges and improve performance.

Motivation to Learn

Adults are driven by internal motivations, such as career growth or self-esteem, requiring tailored training to engage them effectively.

SIX ASSUMPTIONS OF ADULT LEARNERS⁵



Using Assumptions to Design Effective Education Opportunities

4 PRINCIPLES OF ANDRAGOGY⁶



1 INVOLVEMENT

Adults prefer involvement in planning and evaluation, shifting from teacher-centered to collaborative learning experiences.

2 PAST EXPERIENCES

Previous experiences shape future learning; effective programs connect new information to existing knowledge.

3 RELEVANT TOPICS

Adult learners prefer topics relevant to their immediate challenges or goals.

4 PROBLEM-CENTRIC LEARNING

Adult learning focuses on problem-solving, critical thinking, and applying knowledge; not rote memorization.

what tech fluency
REALLY LOOKS LIKE



Back to Basics

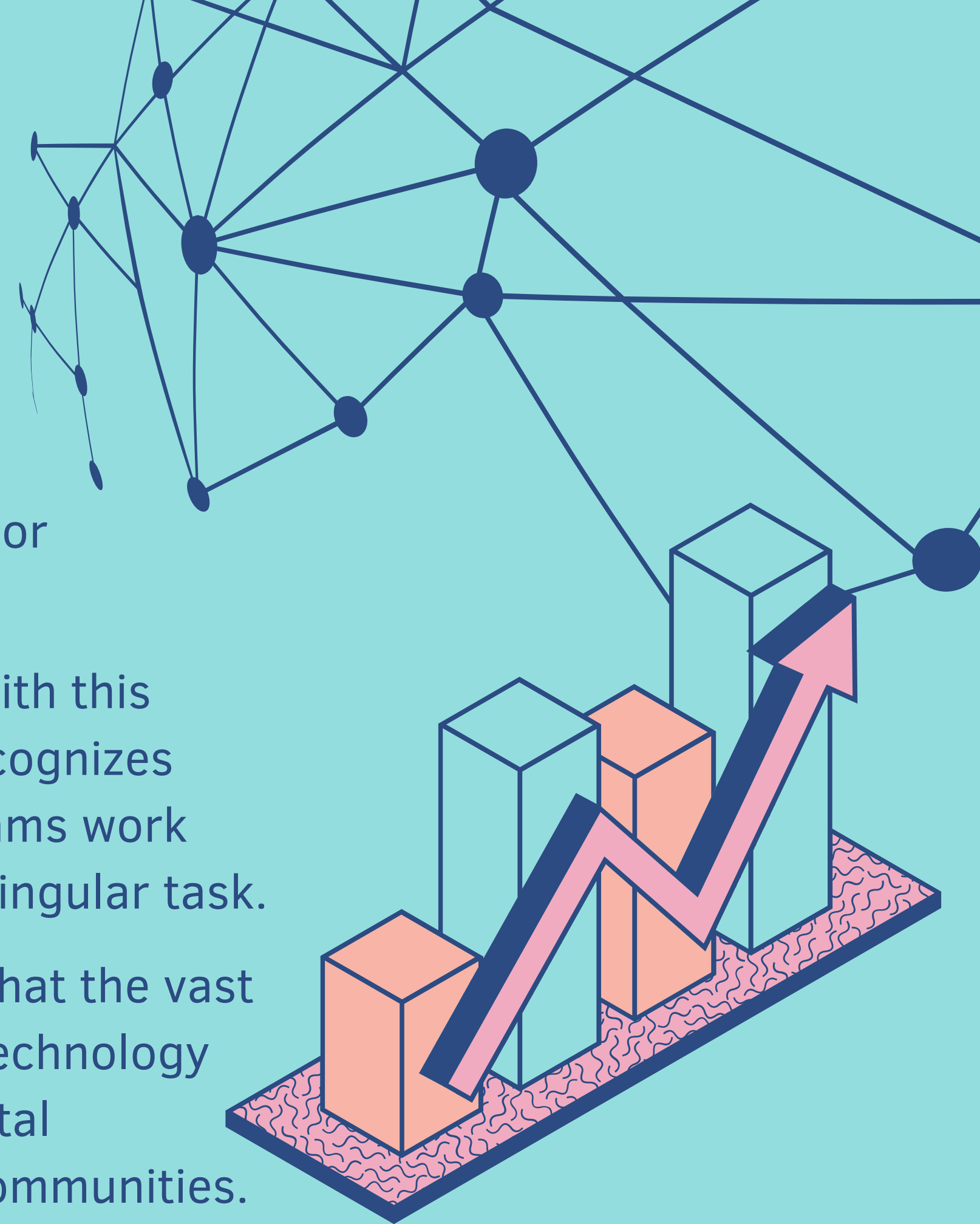
WHAT IS FLUENCY?

FLUENT *(adj.)*

capable of using a language easily and accurately; having or showing mastery of a subject or skill⁷

The term “technological *fluency*” is deliberate. Someone with this fluency understands technology at a systems level and recognizes individual interacting components. They know how programs work beyond following one-dimensional steps to accomplish a singular task.

When we envision widespread digital literacy, this means that the vast majority of all people are able to independently navigate technology (common programs, the internet, basic cybersecurity, digital communication) and teach those skills to others in their communities.



e.g.
EXAMPLE SCENARIO

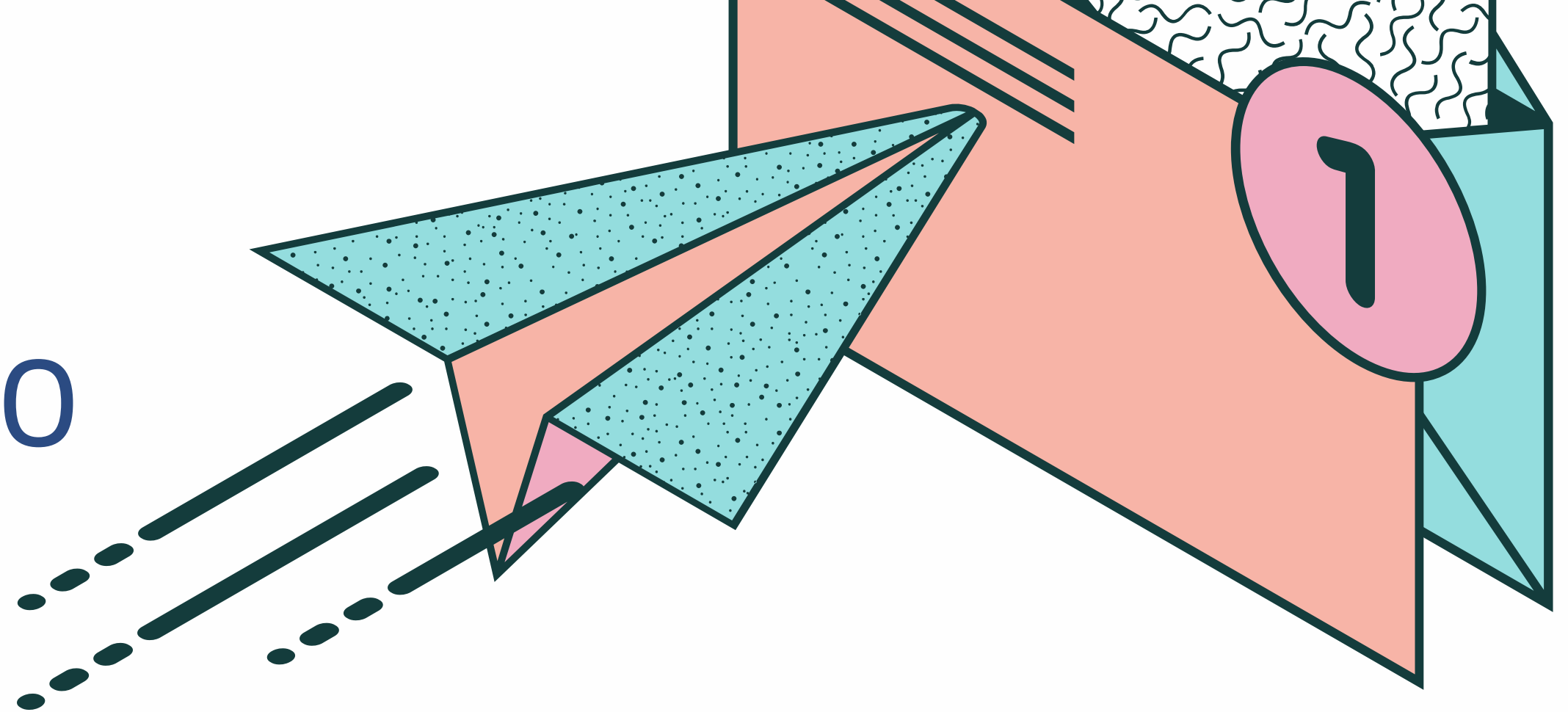
TASK

Sending a PDF file over email

TECH FLUENT PERSON

Will understand:

- How email works
- That they have a personal email account *and* how to sign into it
- What a PDF is *and* where to find it in the file explorer
- How to upload a file to an email draft



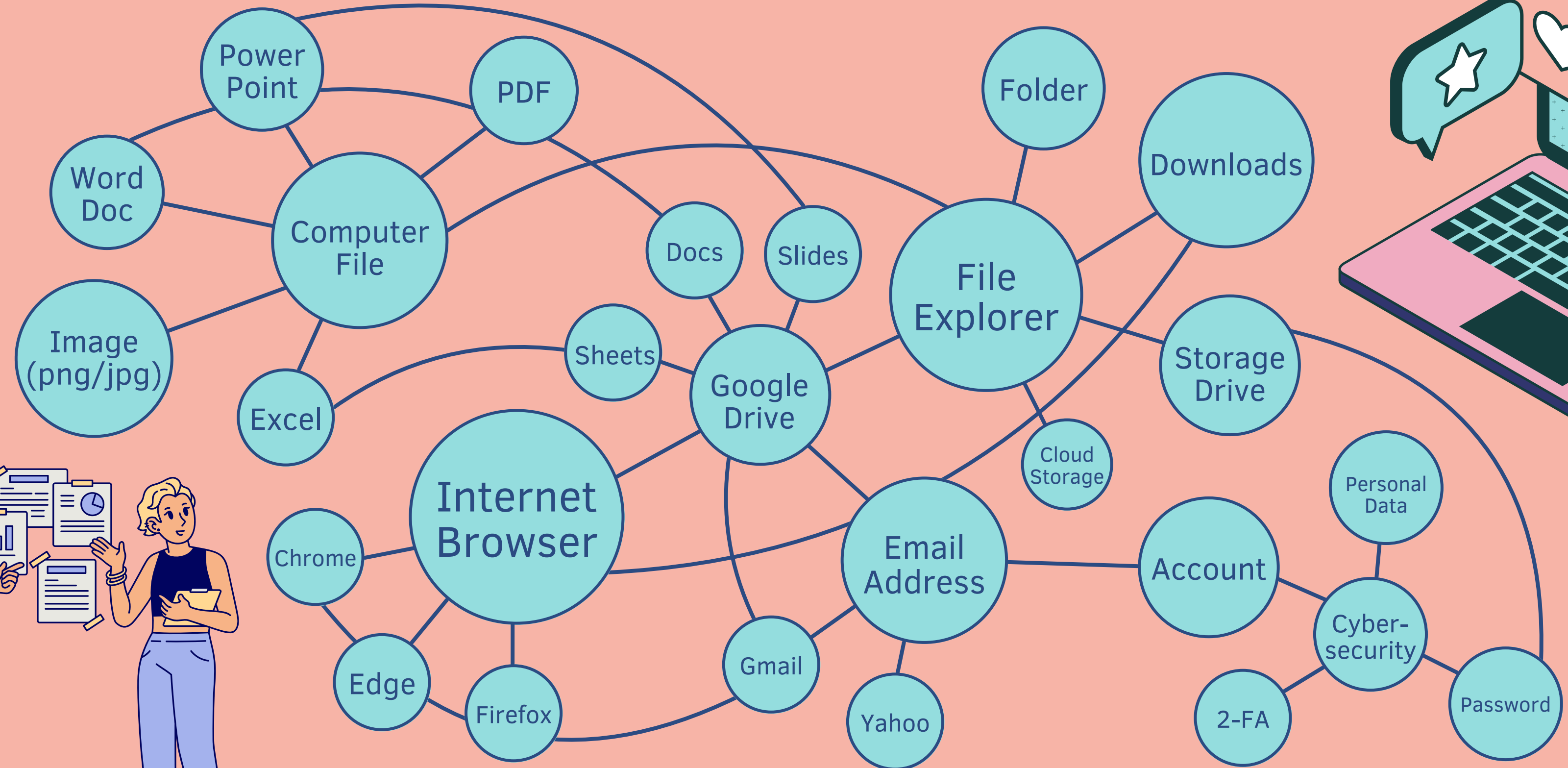
NOT TECH FLUENT PERSON

Might:

- Need help launching an internet browser
- Need help navigating to their email website
- Need help logging into their account (or need help creating one)
- Not know what a PDF file is and need help finding the one they need to email

Systems Level Thinking

DIGITAL COMPONENTS AS A NETWORK



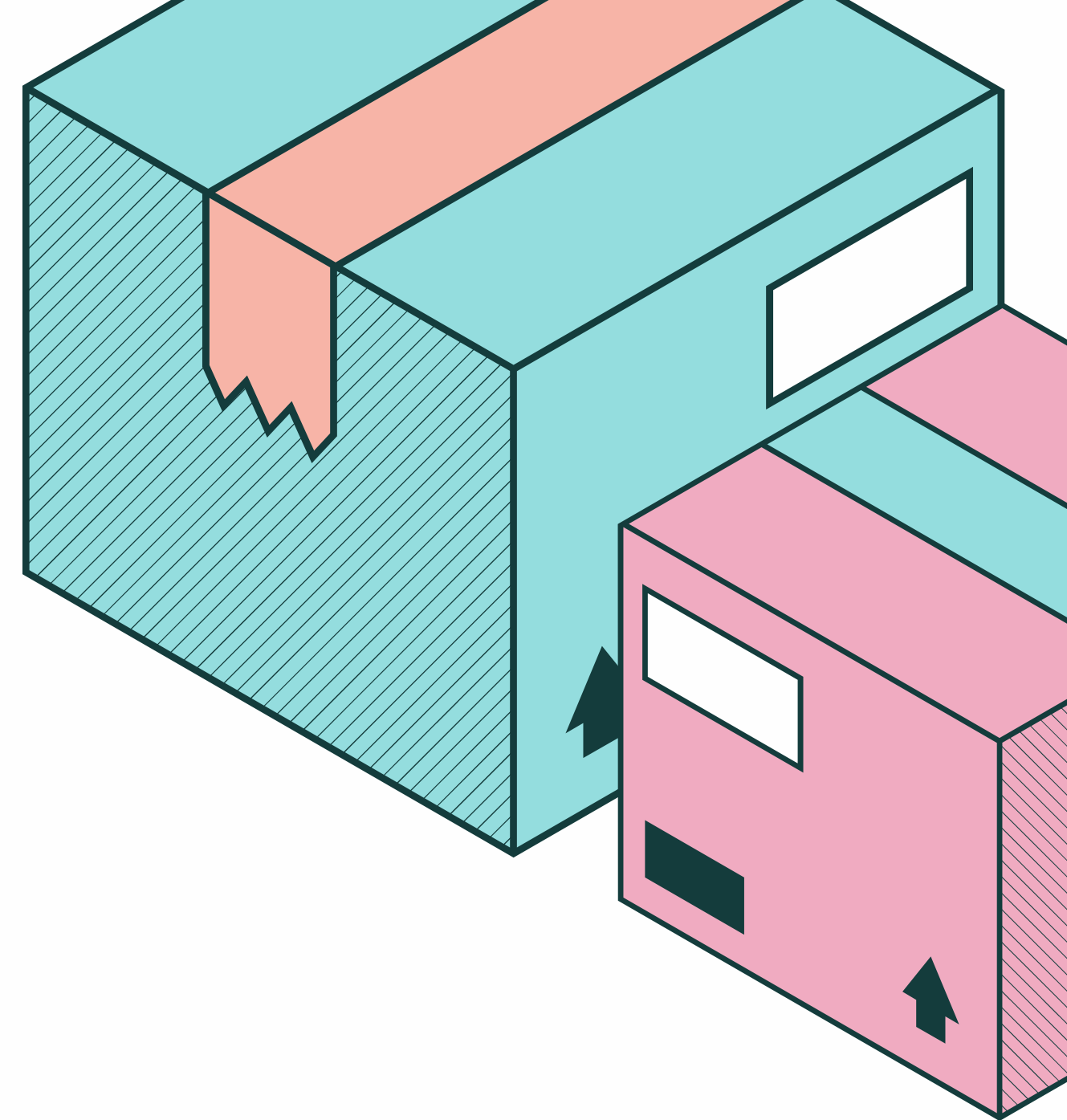
The Ultimate Goal

PACKING PATRONS' TOOLKITS

Ideally, when educating patrons in technological fluency, aim to equip them with foundational knowledge that can be universally applied in multiple scenarios.

Steer clear of giving hyper-specific guidance that only applies in niche cases. While that might be necessary sometimes, it ultimately creates dependency. Using general terms and showing patrons how to recognize broad digital components will help transcend changes that happen with software updates and any UI redesigns that may occur.

When interacting with patrons in a 1:1 scenario, still try to teach them one thing that they can apply later on their own.



**Encourage
independence.
Not dependency.**

creating effective learning
ENVIRONMENTS



Building a Space for Adult Learning

5 CONSIDERATIONS

When designing your technology training space, consider:

R **1** **RESPECT**
I **2** **IMMEDIACY**
S **3** **SAFETY**
E **4** **ENGAGEMENT**
R **5** **RELEVANCE**

Ensure learners are respected, their prior experience is acknowledged, that they feel safe, can see the immediate applicability of the learning to something relevant, and are learning by doing.⁸

8. Wisconsin Union (n.d.)



e.g.

CONSIDERATIONS IN ACTION



R

Respect

Listen to patrons' past experiences and incorporate details to personalize their lessons.

Treat adult learners as equals. Avoid talking down to them.

I

Immediacy

Teach basic digital concepts while patrons use personal accounts.

Establish a guiding lesson theme, but invite patron suggestions for specifics.

S

Safety

State clearly at the beginning that making mistakes is important and vulnerability is essential.

Add a 5-minute activity dedicated to "messing up" to destigmatize it

E

Engagement

Plan time into your course to allow patrons to contribute their thoughts.

Minimize "lecturing" and maximize the amount of time patrons are actually *doing*.

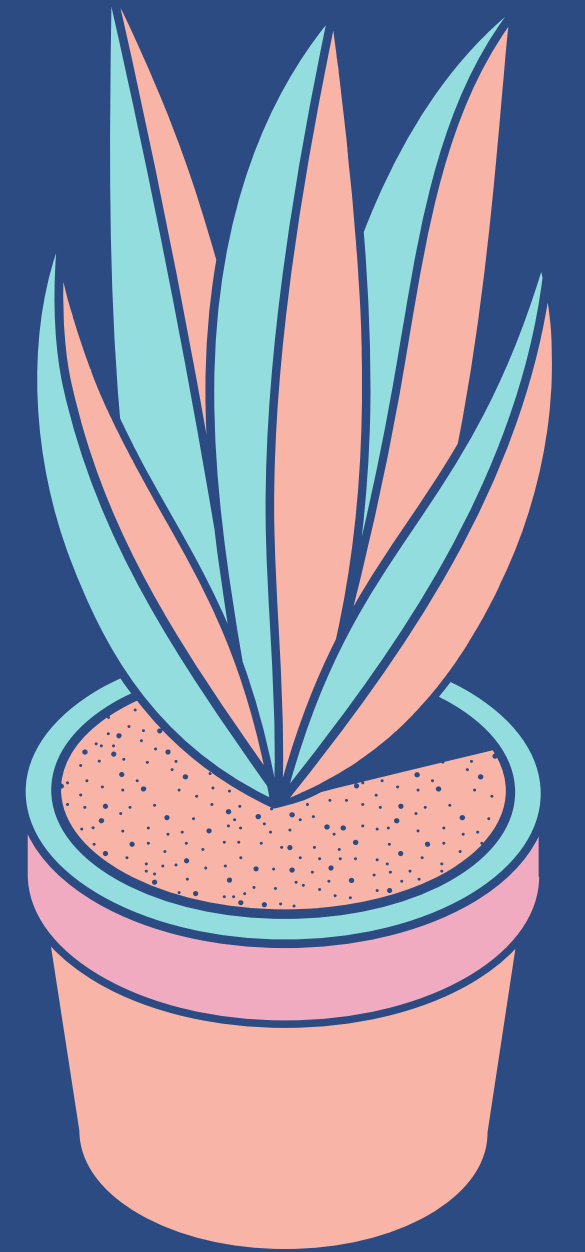
R

Relevance

Incorporate case studies to demonstrate how the learning can directly impact patrons.

Ask open-ended questions to prompt learners to reflect on their own lives.

fostering
GROWTH MINDSETS



Learning Mindsets

FIXED VS GROWTH⁹

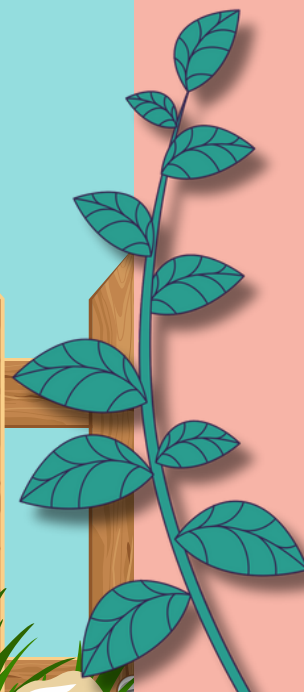
FIXED MINDSET

- Avoids challenges
- Unreceptive to feedback
- Fixates on “proving” oneself
- Feels threatened by others’ success
- Can’t accept failure or mistakes
- Shys away from unfamiliar things
- Believes that ability is static



GROWTH MINDSET

- Views challenges as opportunities
- Embraces constructive feedback
- Focuses on the process, not the result
- Is inspired by others’ success
- Learns to grow from failures
- Eager to step out of comfort zone
- Believes that ability is ever-developing



How to Encourage Growth Mindsets

CHALLENGING FIXED MINDSETS¹⁰

So how do we respond to potential fixed mindsets in our patrons? There are a few strategies to employ that encourage growth and open minds.

Celebrate growth over speed; plan lessons to accommodate a range of learning speeds.

Repeatedly emphasize that appreciating the process is more important than the outcome.

Encourage patrons to recognize their purpose; their *why* for learning in the first place.

View challenges as new opportunities.

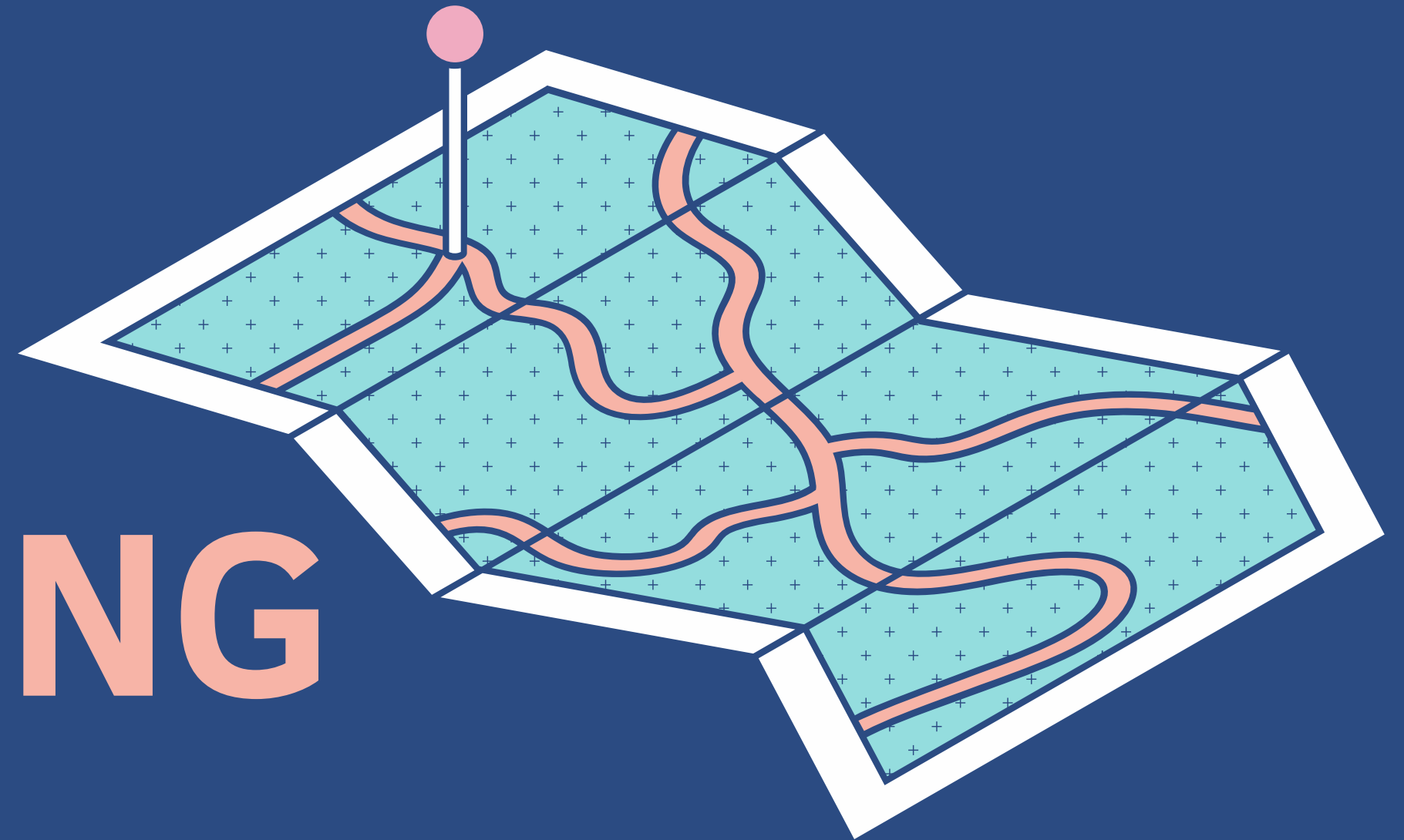
Value effort over talent and praise perseverance and hard work.

Plan time at the end of lessons to help patrons reflect on how much they've learned already!

As the instructor, be mindful of language. "Learning" instead of "failing," "not yet."

Most importantly, MODEL growth-oriented thinking.

universal design
FOR LEARNING



Using Universal Design for Learning

A FRAMEWORK FOR LESSON PLANNING

Adults respond best to learning that offers freedom in choice, self-direction, and collaboration. A useful framework to aid in planning educational experiences that appeal to all learners is Universal Design for Learning (UDL).

WHAT IS UDL?

UDL is a set of guidelines that helps all educators address the diversity of learning in three categories:

- Engagement (the why): recruiting interest, sustaining effort and persistence, and self-regulation
- Representation (the what): perception, language and symbols, and comprehension
- Action & Expression (the how): physical action, expression and communication, and executive function¹¹

The key idea for effectively reaching the widest variety of learners with your materials is to offer multiple means of engagement for each of these categories. Every learner — every brain — is unique. There is no “average” learner, so don’t singularly plan for one!



Design Multiple Means of Engagement



Design Multiple Means of Representation



Design Multiple Means of Action & Expression



Design Options for Welcoming Interests & Identities

- Optimize choice and autonomy
- Optimize relevance, value, and authenticity
- Nurture joy and play
- Address biases, threats, and distractions

Design Options for Perception

- Support opportunities to customize the display of information
- Support multiple ways to perceive information
- Represent a diversity of perspectives and identities in authentic ways

Design Options for Interaction

- Vary and honor the methods for response, navigation, and movement
- Optimize access to accessible materials and assistive and accessible technologies and tools

Design Options for Sustaining Effort & Persistence

- Clarify the meaning and purpose of goals
- Optimize challenge and support
- Foster collaboration, interdependence, and collective learning
- Foster belonging and community
- Offer action-oriented feedback

Design Options for Language & Symbols

- Clarify vocabulary, symbols, and language structures
- Support decoding of text, mathematical notation, and symbols
- Cultivate understanding and respect across languages and dialects
- Address biases in the use of language and symbols
- Illustrate through multiple media

Design Options for Expression & Communication

- Use multiple media for communication
- Use multiple tools for construction, composition, and creativity
- Build fluencies with graduated support for practice and performance
- Address biases related to modes of expression and communication

Design Options for Emotional Capacity

- Recognize expectations, beliefs, and motivations
- Develop awareness of self and others
- Promote individual and collective reflection
- Cultivate empathy and restorative practices

Design Options for Building Knowledge

- Connect prior knowledge to new learning
- Highlight and explore patterns, critical features, big ideas, and relationships
- Cultivate multiple ways of knowing and making meaning
- Maximize transfer and generalization

Design Options for Strategy Development

- Set meaningful goals
- Anticipate and plan for challenges
- Organize information and resources
- Enhance capacity for monitoring progress
- Challenge exclusionary practices

digital
RESOURCE PACK



Packing *Your* Toolbox

RESOURCES FOR GETTING STARTED

As the world grows ever more reliant on technology and digital programs, the need for digital literacy education continues to expand. As we've seen from reported data — and as we *know*, being library staff — the availability of these literacy education opportunities offered by libraries does not yet meet the public demand. There is a niche to fill!

To help jumpstart your efforts, please take advantage of the fully free, customizable, and pre-made templates offered to you now.

FLYER

PAMPHLET

WALLET CARD

UDL GUIDELINES

LESSON PLAN

SIGN-UP FORM

FEEDBACK FORM



Pre-Made Marketing Templates

SKIP THE TIME-CONSUMING DESIGN PHASE

Fully customizable
Promotes a range of essential digital literacy skills
Ready-to-use

INFORMATIONAL
PAMPHLET

FLYERS



WALLET
CARDS



Lesson Plan Templates

EDUCATE WITH CONFIDENCE

Fillable lesson charts to stay organized

Examples to spark your ideas

Survey templates to collect important data

Detailed Agenda:

1. Crumpled Reminder (5-7 min)

- Review [this activity](#) (a)
- Prepare with small sr
- Modify activity to fit
- Emphasize that the fixed mindsets, and

2. Overview of Accounts (15 min)

- Review [this guide](#) main points to dis
- Define important

- Account-website/passwor with an
- Person Most o numb inform
- User know
- Pass sym ma
- En w b c

3. Practice with

- Learn accot is wh instr

Topic	Account Basics							
Objective(s)	- Understand what an account is - Understand how and where an account is used - Understand how to create an account - Understand the importance of a strong password - Understand the importance of keeping your account secure							
Agenda	1. Crumpled Reminder 2. Overview of Accounts 3. Practice with Accounts 4. Understanding Accounts 5. Signing Out 6. Questions							
Essential Question(s)	- What is an account? - What information is needed to create an account? - Why are accounts important? - What accounts do I need? - What accounts do I not need? - How can I keep my accounts secure?							
Vocabulary	<table><tr><td>Account</td><td></td></tr><tr><td>Email Address</td><td></td></tr><tr><td>Logout/Login</td><td></td></tr></table>		Account		Email Address		Logout/Login	
Account								
Email Address								
Logout/Login								
Lesson Resources	Crumpled Reminder Brown County Library GCF Global 2-FA Explanation							
Vocabulary	List relevant In this	Vocabulary Box. Teach!						
		Terms Define them						

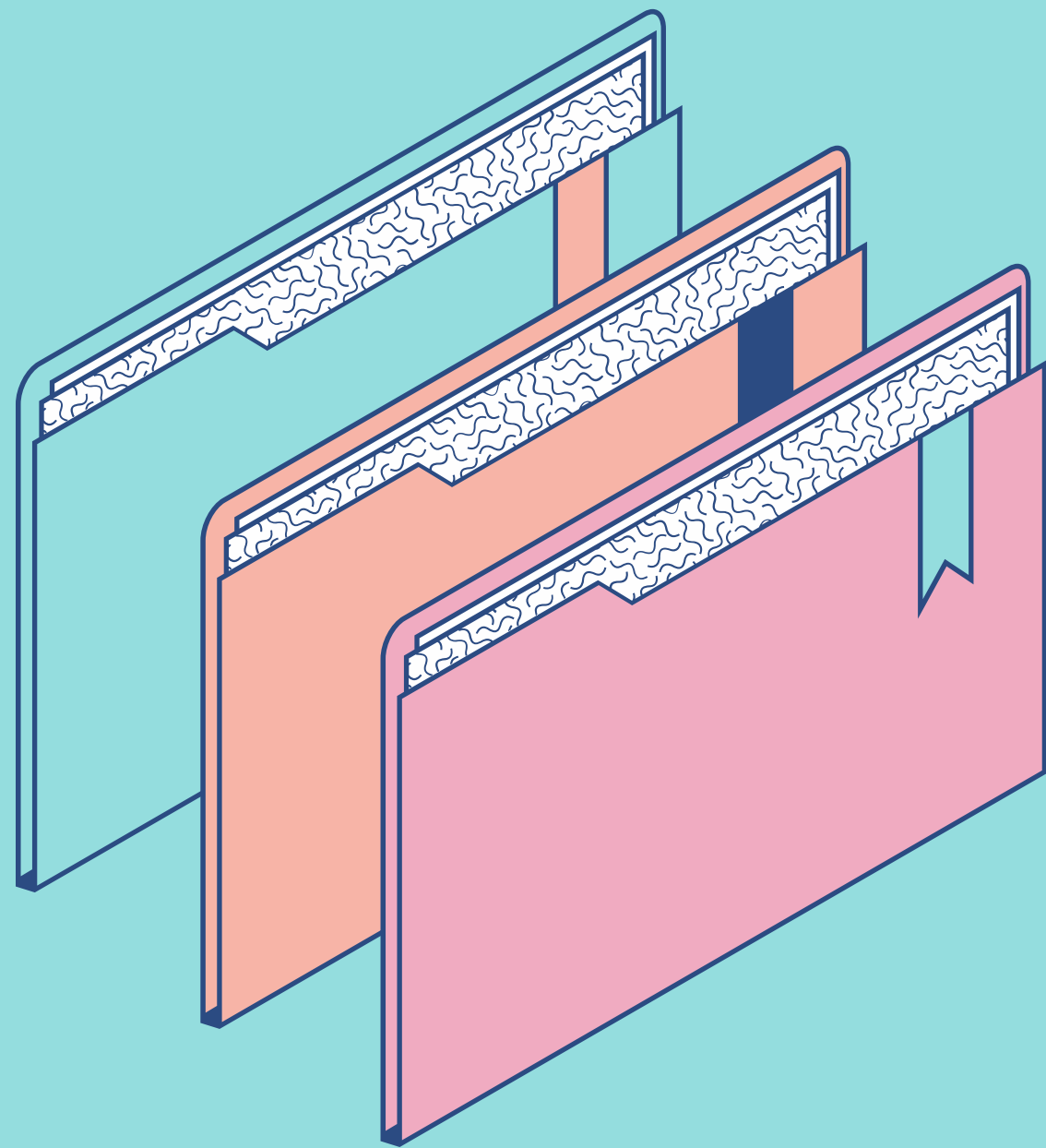
Technology Course Survey

Thank you for taking a technology course at the library. We are excited to offer this service and are always seeking to improve! Please complete this survey to provide us with valuable feedback.

1. Which course did you complete? [List course options as multiple choice or in a drop-down list. If there are several options, format as a short answer.]
2. How satisfied are you with the knowledge you gained from the course?
 - a. Very satisfied
 - b. Satisfied
 - c. Neither satisfied nor dissatisfied
 - d. Dissatisfied
 - e. Very dissatisfied
3. Do you feel you achieved your desired learning outcome?
 - a. Yes
 - b. No
 - c. Not sure
4. How would you rate the instructor's overall teaching performance? [Format as a scale question ranging from 1 (Poor) to 10 (Excellent).]
5. How do you agree with the following statements? [Format using a Likert scale question, with options for Extremely disagree, Somewhat disagree, Neutral, Somewhat agree, and Extremely agree.]
 - a. The instructor prepared well for the class
 - b. The instructor communicated clearly on course expectations
 - c. The instructor delivered course in a clear and easy-to-understand approach
 - d. The instructor encouraged student participation
 - e. The instructor maintained my interest throughout the whole course
 - f. The instructor thoroughly answered questions from students
 - g. The instructor had good time management

thank you
FOR YOUR TIME





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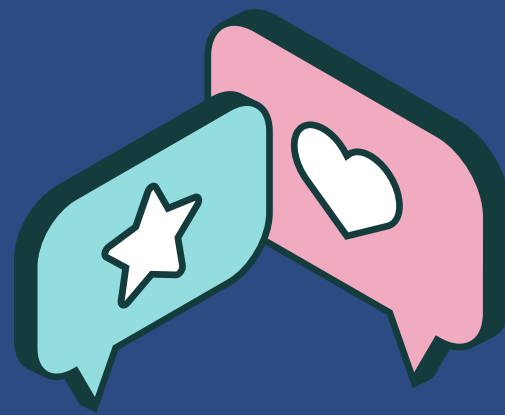
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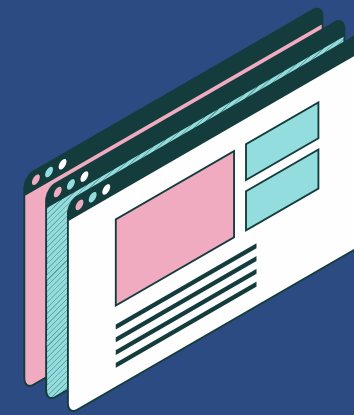
any QUESTIONS



Scan here to
*complete a
short survey*
on this
presentation.



<https://forms.office.com/Pages/ResponsePage.aspx?id=9APwZ80RaE2ggZ1aXS0v0eq2aujCnCNPrObHe1pHHxRUMUxLWENLWk8xTUNLOUREMzFQMkJJS0EyVC4u>



Scan here
to access
the *digital
resource
pack!*

https://arlibrary-my.sharepoint.com/:w:/g/personal/jquick_arlibrary_org/EUONkYPJwmlPmni690iz_IgBUk1figPxMjmKOPMRhDn8dQ