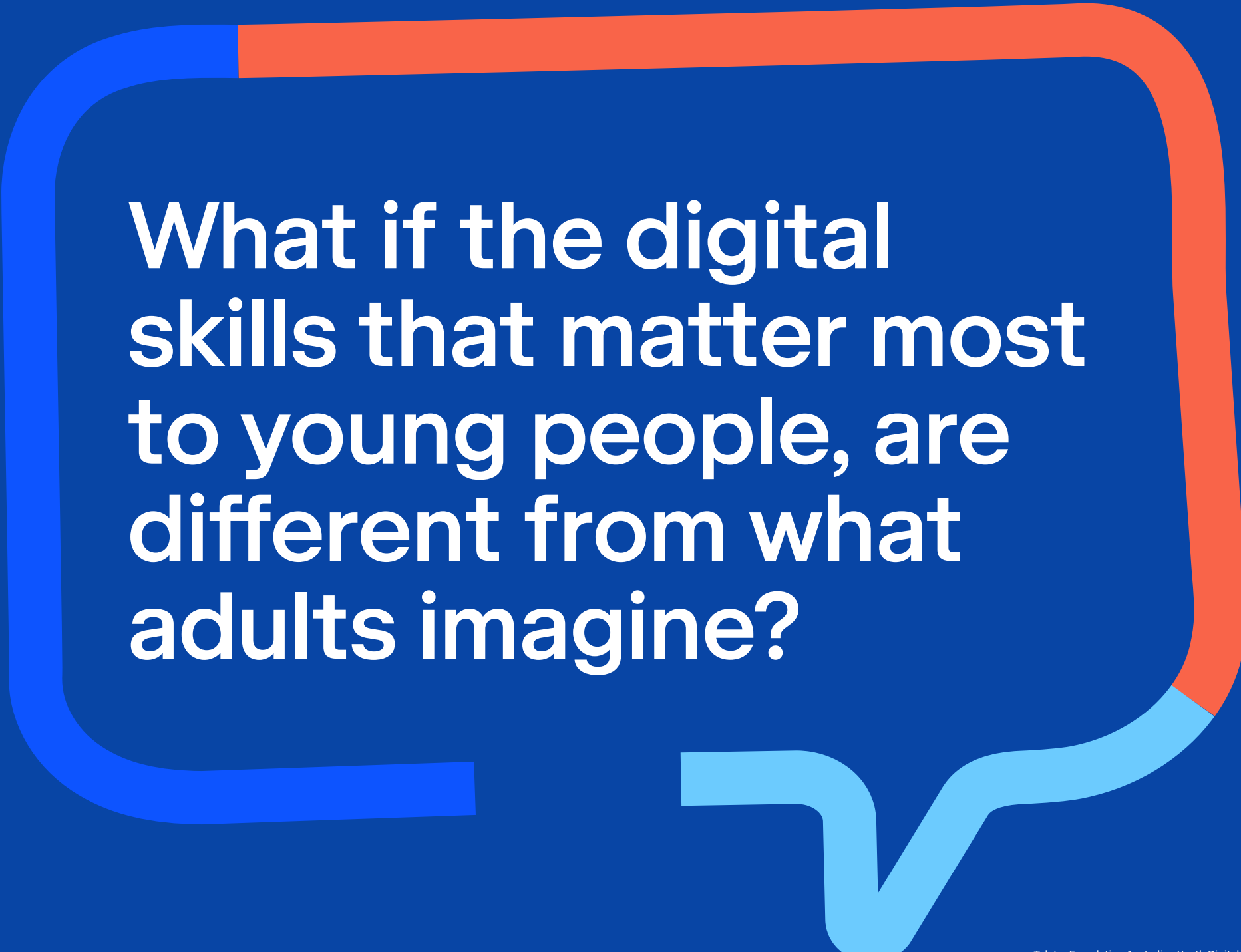


# Digital Skills Report 2025

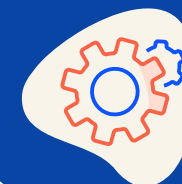
Telstra Foundation  
Youth Advisory Council





**What if the digital skills that matter most to young people, are different from what adults imagine?**

# Youth Advisory Council Skills Report



## Introduction

Digital skills are at the heart of how young Australians connect, create, and thrive in an increasingly online world. The 2025 *Australian Youth Digital Index (AYDI)* reveals that young people are not just adapting to technology, they are shaping it, often in ways adults might not expect.

The Skills score for young Australians in 2025 is **70**, up by 1 point from 2024, the Index shows most young people are confident with everyday digital tasks – over 80% find it easy to use the internet for problem-solving, and nearly 75% are comfortable searching for information online.

For this generation, digital skills go far beyond technical know-how; they encompass creativity, critical thinking, self-expression, and the ability to navigate complex social and information landscapes.

Young people today are: gamers, creators, entrepreneurs, learners, artists, advocates, educators, collaborators, and activists, sometimes all at once.



Many are building their digital skills independently, learning from peers, online communities, and hands-on experience, rather than relying solely on formal education or adult guidance. In fact, the AYDI shows that most young people are figuring out digital skills for themselves, with less than half learning the essentials at school or from family, and 74% saying they taught themselves digital skills, often through trial and error.

Importantly, young Australians recognise that digital skills are essential for their future careers, with 79% agreeing that these abilities will be vital regardless of industry. The rise of AI and other emerging technologies is seen as both an opportunity and a challenge, prompting young people to invest in upskilling and to approach new tools with a critical, creative mindset. While confidence is high, the AYDI also identifies areas for growth, including advanced technical skills, troubleshooting, and critical evaluation of information.

This section of the report explores what ‘digital skills’ truly mean for young people in 2025. Through the voices and stories of our [Youth Advisory Council \(YAC\)](#), and grounded in the latest AYDI data, we’ve looked beyond devices and platforms to understand the depth and richness of digital lives today. The aim is not just to measure skills, but to appreciate the diversity, agency, and aspirations of a generation growing up digital.



## Why explore digital skills?

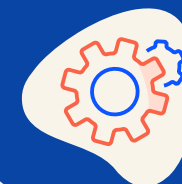
Young Australians are leading the way in how they use technology, proactively managing their digital health, finances, identities, and confidently shaping their online presence.

The 2024 AYDI revealed just how diverse digital experiences are for young people and showed that traditional ideas about ‘digital skills’ barely scratch the surface. We were curious about how this plays out when coupled with the 2025 AYDI showing that 74% of young people are able to learn digital skills easily on their own easily. How does this show up for young people?

In response, the 2025 YAC Digital Skills research project – using AYDI data and youth-led action research – explores the breadth of digital skills young people develop across all aspects of their digital lives.

## Who was involved

The project was devised by the Telstra Foundation team and developed in partnership with PROJECT ROCKIT, engaging 18 YAC members (age 12–18) as co-researchers.



## The process

### Step one: youth-led digital interest activities

Using the YAC co-researchers' conversations and interests, we identified four domains for a two-week digital activity period: Digital Art, Digital Music, Gaming, and AI. They worked solo or in groups to spend time on projects and activities over the two weeks.

### Step two: identify skills used and learned

Over two weeks, each YAC co-researcher completed three surveys to track their skills. Afterwards, they met to discuss and identify the skills they used and learned.

### Step three: case studies

Several YAC co-researchers apply digital skills in professional and semi-professional contexts, such as operating an AI chatbot service, participating in robotics competitions, or producing and distributing music. The research team documented some of these activities.

### Step four: digital skills timeline

YAC co-researchers also co-designed and completed a timeline of key digital skill milestones to provide a reflection on at what age children and young people are developing specific skills or having specific digital experiences to provide further insight into digital skill acquisition.



## Case study



### AI Voting App, Raghu, 17

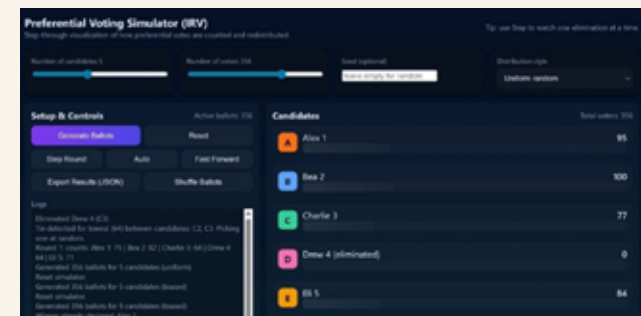
*“My digital activity was to create an interactive, accessible, and engaging visualisation of how Australia’s preferential voting system works.*

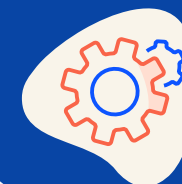
*Earlier in the year, I led voting education sessions for 14-year-olds and noticed that explanations of how votes are distributed through preferences were often too complicated, too simplistic, or missing altogether. This frustrated me at the time, as I wished there were an easier method to demonstrate the concept. This is exactly what sparked the idea for my project.*

*With the support of AI, I built a program using Python, HTML, and JavaScript that simulates the allocation of votes to candidates and moves through successive “rounds,” showing how preferences shape the final outcome. Throughout the process, I used AI tools to strengthen my digital skills in problem-solving and programming. I also experimented with several IDEs (Integrated Development Environment, essentially like a coding workspace) to understand their features and find what worked best for me. In the end,*

*I chose Visual Studio Code, paired with Tabnine and Qodo, as they were intuitive, well-integrated, and genuinely helped to bring my project to life.*

*Learning how to use AI as a copilot in programming was a newly developed digital skill in itself and is certainly transferable to other projects I may undertake in the future. While I have a foundation in programming, I was excited at the opportunity to develop my skills in a non-stressful environment where I could focus on something I was genuinely passionate about. As I was able to work at my own pace, I was more inclined to spend time on this project and thoroughly enjoyed it. Overall, I believe that my interactive simulator of preferential votes easily and engagingly demonstrates the core of the Australian democratic system.*





## Activities & skills identified

Spending at least 4–5 hours over two weeks, YAC co-researchers engaged in activities like AI art, music creation, Minecraft community building, VR game development, website and bot development, and more. They recorded the skills they applied in activities. These activities facilitated not only learning technical skills (coding, AI prompting, web design) but also information navigation, social, creative, and mobile skills.

This lines up with the 2025 AYDI which shows that skill acquisition is highly informal: 53% learn from the internet itself (e.g. YouTube tutorials), 50% from teachers or school programs, and 48% from parents/guardians. Only about 4% took external training or bootcamps.

## Skills identified

YAC co-researchers found that they acquired a broad range of skills through their activities. For example, constructing an underwater base in Minecraft – an activity that some may regard as primarily recreational – was found to involve significant skill development. And that regardless of the activity the skills they developed had many commonalities.

### Activities included:

AI prompting with different platforms to recreate famous works of art

Music creation using GarageBand and DJ apps

Playing Minecraft and building an online community

Undertaking VR game development

Exploring fashion design with AI

Developing websites and online businesses

Discord bot development and verification

Exploring the possible intersection between AI and art as collaborative instead of competitive.

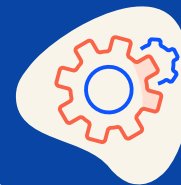
Using AI to create a web app

Using digital art in VR headsets to create a formula one car

Building relationships through gaming

Setting up an AI Transformation Agency





Interestingly many basic digital skills, which are necessary for more complex tasks, were not specifically noted by YAC co-researchers. It was generally assumed that all participants could use web browsers, organise digital files, manage and store data in the cloud, and properly use a VR headset etc.

The skills identified likely represent only a portion of the abilities developed by young people through regular digital interaction. This highlights the critical importance of access; like how access to books and reading support enhances literacy, access to digital technology and guidance contributes to the development of digital skills. People with greater access tend to develop a broader and deeper set of digital skills.



## Case study



**The YAC Minecraft Server:**  
Micah, Adi, Lilly, Patrick

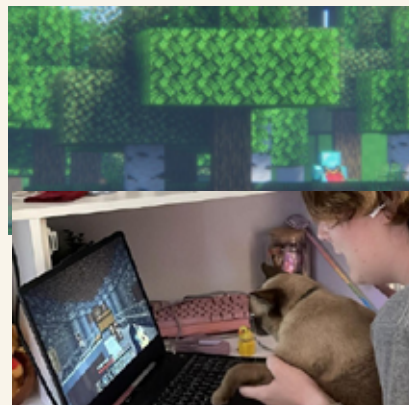
*Some members of the YAC set up a standalone Minecraft Server to play and explore in an open-ended fashion. The core members were involved in building and shaping a small online community where they strengthened their relationships. They collaborated on construction and creative projects within the game, coordinated activities and group adventures, and supported one another in resource gathering and achieving in-game objectives.*

*What became obvious was how online gaming fosters strong pro-social behaviours. Very quickly the group were praising and positively commenting on each other's builds, sharing tools and resources, working out how they could work together and even creating spaces where any excess could be shared across the group.*



*The breadth and depth of technical skills was represented in the planning and building of structures, managing the backend of the server itself and creating machines using redstone (Minecraft's 'coding' material).*

*At the end of the two weeks, one member even demonstrated a commitment to the group by securing a special resource called Netherite and reproducing it to share with everyone on the server as a thank you. And even though the activity has ended, the group are planning on setting a time to all be together on the server to go and defeat the Ender Dragon.*



## Skill categories (per International Internet Skills Scale)

We used the International Internet Skills Scale (ISS), an empirically validated instrument that assesses internet skills from basic to advanced, to categorise the digital skills.

## Case study

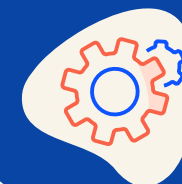


**Project:Ranked: Micah, 14**

*Find out how Project:Ranked came to life in Micah's blog about building his competitive ranking system from scratch – complete with PHP, PostgreSQL, and a vibrant community.*

Learn more





Some skills span multiple categories, so they've been placed where they most strongly align:

## 1. Operational skills

*Using devices, software, and basic digital tools*

- Coding (Python, JavaScript, HTML)
- Bug testing/debugging/iteration
- Website development & management
- Web design/UI design/SEO
- AI prompting/prompt engineering
- AI system knowledge (automation, AI agents, solutions mapping)
- 3D art and VR design
- Music production (GarageBand, DJing)
- Digital art tools (Illustrator, drawing apps)
- Data handling

## 2. Information navigation skills

*Finding, evaluating, and managing online information*

- Research skills
- Information and media literacy
- Critical thinking
- Reasoning
- Analytical skills
- Decision-making
- Learning how to learn
- Curiosity and exploration

## 3. Social skills

*Communicating and interacting online*

- Communication skills (digital + verbal)
- Teamwork and cooperation
- Digital communication

- Outreach and marketing communication
- User feedback and engagement
- Client communication
- Empathy (understanding user perspectives)

## Case study



### Digital Music Creation: Dakota, 18

*"In 2022 to 2023 I began a music project called Supernova. It is an experimental project which attempts to seamlessly blend digital music with more traditional forms. Using GarageBand as my Digital Audio Workspace (DAW), I began to compose some tracks. I believe the songs produced demonstrate that anyone can create music, regardless of circumstance, which ultimately aids in connection and maintaining creativity. Most of the tracks began with a loop of my guitar being recorded by my phone angled towards my amp and adding digital synthesizers found on GarageBand. I recorded some ambient sound from my Korg Monotron Space Delay synth and took some field recordings of birds with my phone. After shifting layers, cutting sections, looping recordings, I had a completed track titled DREAM/TRANQUILITY. I used a similar process to record my second track, ASCENSION, although that included drums which were entirely digital. The last track I produced, which is the first in the trilogy,*

*SPACECRAFT, was created using only GarageBand and a sample, using digital synthesizers and drums.*

*In 2025, I continued to add more layers to the existing songs and created some mock album covers. The album covers started from pictures I took which were digitally edited to look more like an album cover. The music production itself, as well as the creation of the album covers, were only possible due to access to a digital means of creating music and editing photos."*

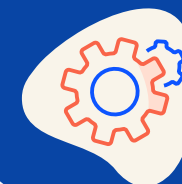
*Listen to Dakota's music here – tip from Dakota you should listen to them in this sequence!*

 **Spacecraft**

 **Dream**

 **Ascension**





## 4. Creative skills

### Creating and sharing digital content

- Creativity/design thinking
- Colour theory
- Digital art and illustration
- 3D design and VR modelling
- Music and rhythm (drumming, DJing)
- Logo and brand design
- Business planning/entrepreneurship
- Marketing strategy and outreach
- Workflow design and systemisation
- AI solutions implementation
- Planning and organisation

## 5. Mobile skills

### Using mobile devices and apps effectively

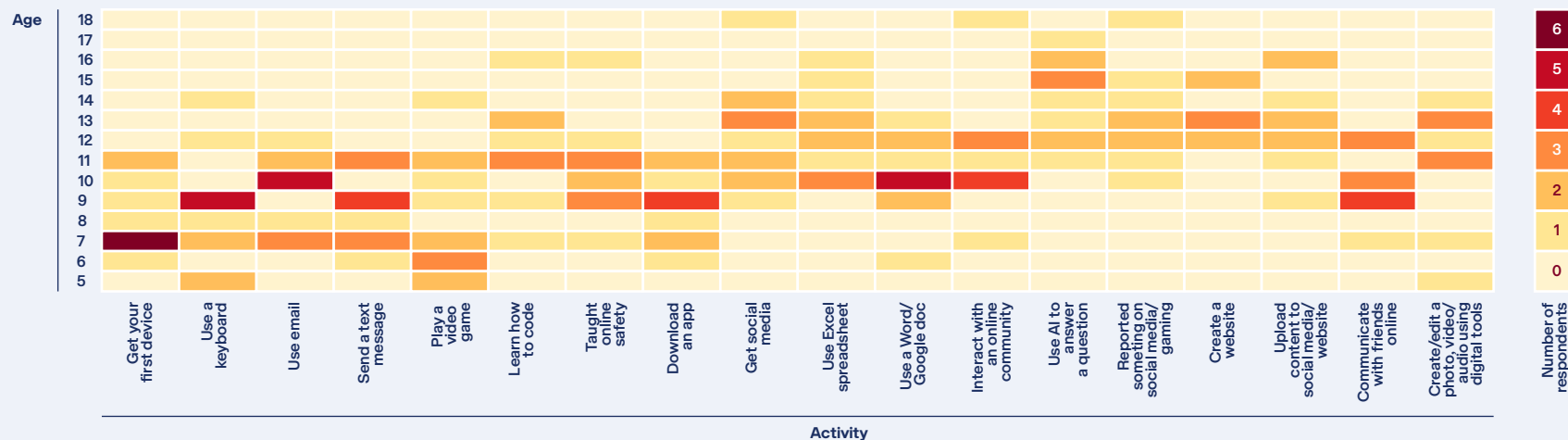
- Many of the above skills (e.g. digital communication, content creation, app-based design tools) can be adapted to mobile contexts, especially:
  - AI prompting/prompt engineering (via mobile apps)
  - Digital art tools
  - Music production
  - Social media outreach
  - Mobile-first web design

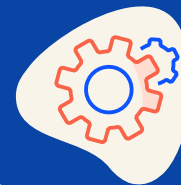
## Digital skills development timeline

YAC co-researchers used a digital timeline survey to record the ages at which they first had digital experiences. Out of the 12 respondents of the survey, the following patterns emerged:

- **Ages 7–10** show the highest concentration of first experiences: across activities like texting, gaming, and keyboard use.
- More **advanced skills** like creating websites, coding, and using AI show higher starting ages, typically **11–13**.

Figure 11: Heatmap of age distribution by digital activity





- Many YAC members first helped an adult with technology at around 11–13 years old. Common situations:
  - Helping parents or teachers fix a **TV setting, Wi-Fi, or computer issue**
  - Supporting relatives with **basic navigation** (email, browser, etc.).
- Some activities (e.g. coding, reporting content) have sparser distributions, indicating less universal early exposure.
- Common first online safety lessons remembered:
  - ‘**Don’t share personal information**’
  - Stranger danger online
  - Password protection and privacy

Young people’s early digital experiences – often involving entertainment, learning, connection, and exploration – reflect the realities of growing up in a digital world. While foundational online safety was taught, skills like critical thinking and problem solving were mostly self-learned through independent exploration.

Digital skill acquisition is not something that can be ignored – the later young people learn digital skills, the more they fall behind.

## Case study



### Digital skills development: Adi, 16

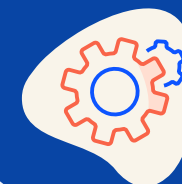
*“I first started building my digital skills when I got my first iPad at around five years old. I remember setting up games, apps, and even customising the layout of my home screen without really knowing what I was doing. I kind of just explored and tweaked around until things worked. Over time, YouTube and the internet in general became my biggest ‘go-to’s’ for learning digital skills. I’m most proud of learning how to build a custom advanced eCommerce AI chatbot on Voiceflow (a low-to-no-code chatbot builder). I created the chatbot by searching online for all the different parts that would make up the chatbot that I wanted, but I just couldn’t find every single piece of code and tutorial that I wanted. I ended up using ChatGPT and even asking my mum for help with coding some parts, like using APIs for Shopify and recommending products through AI with custom database algorithm.”*

### Sharing Digital Skills

*I try to help other people with technology all the time, especially when it’s related to my interests or skills. My friends usually come to me when they need help with anything tech or AI related, and I usually turn to AI for my own digital problems. I feel really fulfilled and happy when I can help others figure something out, for example setting up a tool, explaining how to use AI effectively, or just showing them a new way to do something faster or better.*

### Impact of Digital Skills

*My digital skills have made a huge impact on my life. They’ve helped me study more effectively at school, earn money through my business and help around in our Telstra Foundation Youth Advisory Council, and even solve random problems like figuring out who made the ‘ships’ account for our school. My life basically revolves around technology and AI now, and I really can’t imagine what it would be like without it.”*



## Observations & recommendations

What we see in both the outcomes of the YAC Digital Skills research project and the 2025 AYDI are consistent.

### Observations:

- Digital skills include higher-order cognitive skills (critical/creative thinking, reasoning) used across digital experiences. About 10% find fact-checking information 'hard', and only 58% find it easy to verify information online, indicating a need for stronger media literacy.

- Young people learn broad digital skills organically through work, creativity, and recreation, often outside formal education. Four out of five young people are confident with everyday digital tasks, and over a third have any coding experience.

## Case study



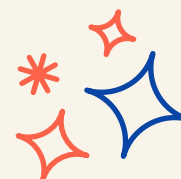
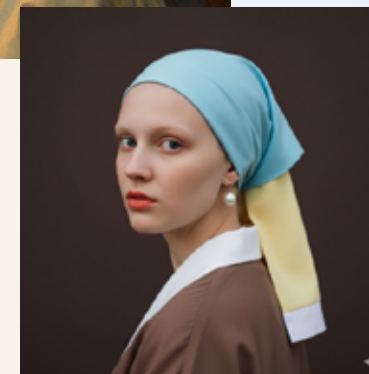
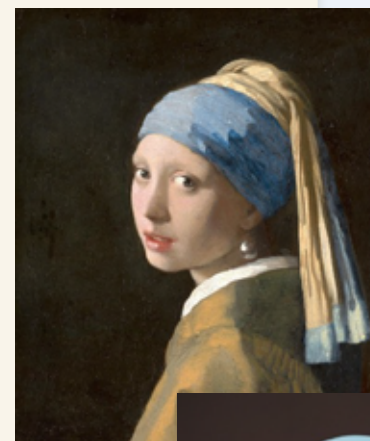
### AI Art: Rispah, 17

*"I've always admired the details that go into artworks, so when the YAC Digital Skills Project gave us the chance to experiment with AI, I thought, 'Why not try to recreate some of the world's most famous paintings using just words?'. Initially, I thought using two different AI platforms would help, but after some trial and error, I decided to stick with Google Gemini. As I kept experimenting, I realised this wasn't just about typing prompts – it was about thinking critically, anticipating mistakes, and learning how to communicate clearly with a machine.*

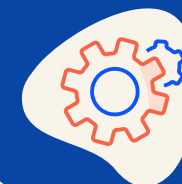
*One of my biggest challenges was getting Gemini to understand ambiguity. For example, when I tried to generate Euan Macleod's Barrow Man, I told it to make the figure completely featureless, but instead, it gave me a man in a suit with vague facial details. That taught me patience because even when I wrote long, detailed paragraphs, AI didn't always follow instructions perfectly. Sometimes my elaborations confused the platform, so I had to rephrase and explain things differently.*

*I also learned that clear communication matters. This was apparent when working on the Portrait of Madeleine, and I noticed Gemini generated her with one gold hoop earring. To get that right, I had to specify the size and whether the other side of her face should show another earring. These small details shaped the accuracy of the output and showed me how much precision matters in AI prompting.*

*Looking back, this experience wasn't just about generating images; it was about developing skills. I've improved my critical thinking by breaking down what makes a painting iconic, practiced patience when AI didn't get it right, and strengthened my ability to communicate clearly through written instructions. The images weren't perfect replicas, but they were fascinating interpretations, shaped by my words and the AI's algorithms. It made me consider big questions too – like originality and ownership in the age of AI. But mostly, it made me excited. Creativity with AI can be unpredictable, but I can't wait to keep learning and growing with it.*



Generate a photo of a girl looking over her left shoulder to the viewer standing in front of a dark brown background. Make her skin complexion fair, her lips a coral orange colour, and her eyes a deep blue. Make her eyebrows very light blonde and almost transparent. Put her in a robe that's a lighter shade of brown to her background with a white collar. Give her medium sized pearl earrings. Give her a headwrap that is shaped around her head like a ponytail. Make the base of the headwrap light blue and slightly covering her forehead and make the part that hangs down like hair light yellow and the bottom of it has a white banner. Finally make the photo by from her chest upward, medium shot, with a blank expression on her face.



- Skill acquisition is ongoing and peer-supported, with trial and error, online resources, and peer guidance playing major roles. 44% learned from friends, and 22% from siblings.
- Support is needed for continued skill development and to close the digital divide. Socioeconomic factors and location affect access to advanced tools and training, but basic and intermediate digital literacy is high regardless of location.

### Recommendations:

- Recognise the full spectrum of digital skills youth develop, including adaptability and self-learning.
- Invest in access, tools, and environments for self-directed and peer-led learning.
- Partner with youth as co-designers of digital futures.
- Ensure equitable access and recognition of digital skill-building opportunities and micro-credentials, especially in coding, AI, and media literacy.



### Listen, Learn, and Lead with Young People

The digital world moves faster than even the most tech-savvy adults can keep up with – but young people aren't just passive consumers; they're leading the charge. It's time we redefine what digital skills mean, not by adult assumptions, but by listening to the lived experiences of young people themselves. They are creators, coders, collaborators, entrepreneurs and critical thinkers – they are learning outside formal systems, through curiosity, community, and creativity.

So, as educators, policymakers, industry leaders, and families how should we respond to this?

We can start by:

- Recognising the full spectrum of digital skills young people are developing. They're going beyond the basics, into creativity, problem-solving, and innovation.
- Acknowledge digital play as fundamental to building transferable skills like; creativity, critical thinking, collaboration and teamwork, and decision making.
- Investing in access, tools, and environments that support self-directed and peer-led digital learning.
- Partnering with young people as co-designers of their digital futures, not just recipients of adult-led programs.
- Closing the digital divide by ensuring all young people, regardless of background, can explore and build the digital skills they need to thrive.

### A final word



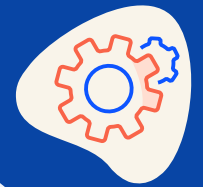
*From a young age I grew up around technology like artificial intelligence, VR headsets and holograms. I'm so extremely lucky to have had the opportunity to learn early on how important young people are in today's society.*



*I have seen in real time how fast technology is growing and how the younger generation are at the centre of the future and are so important to listen and learn from them.*

*What I have taken away from the digital skills activity is that young people are so talented and we need to listen to them in order to adapt to the future of technology.*

Jasmine, 16



## Case study



### Codemates & Patch: building digital skills from curiosity to confidence

Codemates is reimagining how young Australians discover coding. At the centre is Patch – a lively animatronic puppet that children can program remotely using a simple, web-based interface. By making Patch dance, joke, and interact in real time, kids as young as eight experience the thrill of seeing their code come to life, turning digital learning into hands-on play.

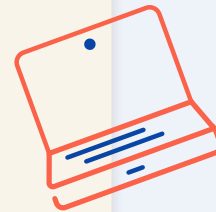


*This playful approach is core to Telstra Foundation's strategy: building foundational digital skills early, for all. Codemates and Patch lower barriers to entry by making coding accessible, social, and fun, especially for children who might not see themselves as 'techy'. The program fosters experimentation, creativity, and peer learning, helping young people move from digital consumers to confident creators."*

As Patch says:

*"Coding is more fun when we do things together! Let's get creative and see what you can make me do!"*

*By meeting kids where they are – curious, playful, and eager to explore – Codemates and Patch are helping to close the digital divide and inspire the next generation of digital makers across Australia*



**Bottom line:** Young Australians are increasingly self-reliant and proactive in developing digital skills, with growing confidence and recognition of the importance of these skills for future careers. While formal education and parental guidance play important roles, self-learning and internet resources are the primary avenues. The rise of AI is both embraced and approached with caution, highlighting the need for balanced education on its use and implications.



## Acknowledgement of Country

At Telstra Foundation, we recognise and acknowledge the existing, original and ancient connection Aboriginal and Torres Strait Islander peoples have to the lands and waterways across the Australian continent. We pay our respects to their Elders past and present and all the First Nations people and communities we are privileged to work with on our Foundation projects. We are enriched by Aboriginal and Torres Strait Islander peoples' strength, leadership and contribution to our organisation, and we commit to working together to build a prosperous and inclusive Australia. We also acknowledge the inspiring contributions made by young Aboriginal & Torres Strait Island people as members of our Youth Advisory Council as well as program co-designers and collaborators.