The Contestant

YU-TING

Age in 2030: **19**

For decades, students everywhere have been "learning to the test." They know that winning a competitive slot in a good school means learning how to pass the tests. But now, in 2030, many young people are learning to the *contest*, because contests are where you find fame, money, and—yes!—practical knowledge about real-world challenges.

Yu-Ting grew up in Chongqing. He lived with his grandmother—his *nai nai*—who was a casualty of the 1970s Cultural Revolution that turned professors into peasants at a time of anti-intellectual fervor. His grandmother knew that a good degree was the first best step toward an "iron bowl" future of stability and status. But she also knew that she was too poor guarantee a good degree for Yu-Ting. So she did the next best thing. She urged him, from an early age, to make a name for himself winning contests.

The playing field for these contests? Artificial intelligence, robotics, and augmented reality.

Already by the time Yu-Ting was 13, he and his *nai-nai* had launched a world-class competitive team. They scanned the ever-growing array of local, regional, and global challenges to solve complex problems using the emerging AI technologies—competitions that paid big rewards for novel solutions. They also scanned their personal networks for teammates who could contribute critical skills to the endeavor. Skills like securing small corporate grants for their project costs. Or converting AI thinking into AI apps. Or documenting their unique problem-solving approaches with highly polished videos. Or building AI-assisted 3D immersive team spaces.

For his part, Yu-Ting discovered that he was a natural when it came to public performances—both in-person and in 3D immersive media. He cultivated a winning style, modest and inspiring at the same time. He also committed himself to what he calls cross-disciplinary fluency. His ability turn technical details into fun stories has made him a model for others who aspire to follow his path.

Recently, while talking to a journalist about his team-based approach to contests, he heard himself saying that what he was really doing was coaching a soccer team for the mind. Soccer for the mind! Now his team has a new challenge: to build a worldwide platform for competitive intellectual sports. "It's going to be as big as FIFA," he says. "Just wait and see. And China is going to win the world cup!"

YU-TING'S SKILLSET

- Learning to the contest
- Large-scale problem-solving
- AI thinking
- Robotics
- AR-VR applications
- Technical storytelling
- Distributed team skills and spaces
- Public performance in immersive media
- Self-documentation
- Fundraising

YU-TING'S PEAK PERFORMANCE PATHS

Yu-Ting's peak performance paths are all about performance—team performance and personal performance, emphasizing celebrity, creative problem-solving with cutting-edge technologies, and turning network connections into shared victories.

MAKE YOURSELF KNOWN: Collaborating competitively to achieve celebrity

celebrity — **visibility** — **self-knowledge**

BEFRIEND THE MACHINES: Creating AI-assisted strategies for winning AI contests

curation — **creation** — **simulation**

BUILD YOUR CREW: Building competitive teams from network connections

startups — **communities** — **networks**

MAKE SENSE: Converting technical knowledge into stories for everyone

narratives — **operational frameworks** — **ecosystems**

KEEP IT GOING: Developing a "soccer for the mind" coaching platform

caring — **sharing** — **evolving**

YU-TING'S LEARNING STACK

Yu-Ting's learning stack builds on the growing global system of collaborative contests and grand challenges. Already at 13, he realized he could do more than "make the grade" by winning contests—he could actually win corporate financial support (and internships) for his endeavors and reap the rewards in the form of cash prizes and public reputation. But he also realized that he needed 3D immersive workspaces to build the collective intelligence of his distributed and multi-skilled teams. So even though his core learning stack is outside traditional education, he knows how to tap traditional media, experts, and corporate resources to build his peak performance paths.

INCENTIVES
- » Prize money
- » Public recognition
- » Thought leadership
- » Alignment with national objectives

CREDENTIALS
- » Prizes won
- » 3D immersive video reports
- » Traditional media coverage
- » Funding sponsors

INSTRUCTION
- » Contests
- » Teammate interactions
- » Online courses
- » Expert interviews
- » Media professionals
- » *Nai-nai* coaching

CURRICULUM
- » Learning to the contest
- » Practical real-world challenges
- » Applied AI and robotics
- » Immersive 3D media
- » Public speaking
- » Storytelling

INFRASTRUCTURE
- » Global and local contests & grand chalenges
- » 3D immersive environments
- » AI-assisted personalized online courseware
- » Index of online learning resources

STANDARDS
- » Contest rules and requirements

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The Startup Artist

RAYAN

Age in 2030: **25**

By the time Rayan reached his sixth year in school, he understood an important truth about his future: the best way to learn was to continuously create startup organizations that solved real problems—whether for money or the future well-being of his country.

Now, at 25, with an MBA from Pennsylvania's Wharton School in Philadelphia, he has already launched five startups, including a nonprofit elementary school that prepares youngsters for a lifelong journey of startup learning. And he has even bigger plans for the future.

Rayan took his first step into the world of startups when his older cousin Maha asked him to help her build a social media following for her own fledgling startup—a company in the burgeoning environmental monitoring market. At 12, he had already started to deconstruct platforms like Sprout Social to understand how to analyze social media data and attract a network of people who shared his interests. But what really inspired him was the discovery that the product of a startup was often not as important as the business model.

Then he landed at the University of Texas at Austin and immediately got himself plugged into an incubator in the "Silicon Hills." He convinced his teachers at the university to give him credit for projects he completed with startups there and then began to build his own, tapping his extensive FFF network—friends, family, and "fools!" Each company extended his expertise in environmental monitoring technologies, from DNA analysis to biological monitoring to bio-synthesis tools, with a healthy dose of how-to-fail in the mix.

But it was his MBA program at Wharton that brought him back to his real passion: business modeling. He turned to the user-friendly, drag-and-drop AI platforms that made it easy for him, as a not-particularly-accomplished-programmer, to quickly generate innovative business models. And he discovered that his FFF network was learning right along with him. So he began to turn his startups into classrooms for youngsters, first in Philadelphia and then back home in Jeddah. That led him to create a curriculum for children to learn the basics of business modeling and startup thinking from their earliest years. Hence his latest nonprofit school, also a startup venture!

The future? He's looking ahead to a new platform for assessing startup experiences and awarding credentials and certifications right alongside traditional educational credentials. Yet another opportunity to build on his startup resume and perhaps inspire his next business model concept.

RAYAN'S SKILLSET

- Startup business modeling
- Social media branding
- Nonprofit investment models
- AI-based business modeling
- Environmental monitoring
- DNA analysis
- Bio-synthesis
- Learning from failure
- Curriculum development
- Scaling up

RAYAN'S PEAK PERFORMANCE PATHS

Rayan's peak performance paths emphasize visibility, creation, a blend of organizations and communities, a strong play in operational frameworks, and a constantly evolving strategy based on learning from his failures.

MAKE YOURSELF KNOWN: Mastering social media branding

celebrity — **visibility** — **self-knowledge**

BEFRIEND THE MACHINES: Creating AI-informed alternative business models

curation — **creation** — **simulation**

BUILD YOUR CREW: Bootstrapping with FFF financing—family, friends, and "fools"

startups — **communities** — **networks**

MAKE SENSE: Innovating business models

narratives — **operational frameworks** — **ecosystems**

KEEP IT GOING: Learning from practical failures

caring — **sharing** — **evolving**

RAYAN'S LEARNING STACK

Rayan's learning stack is built on both traditional and novel work+learn strategies. Like others from his country, he placed a premium on studying abroad in well-regarded institutions. But he was also a self-directed learner from his early days of hacking the intelligence behind sites like Sprout Social and then breaking ground with user-generated intelligence to generate business models. Working across scientific disciplines, he saw the common lesson was that these models can all scale up—which is what startups are really all about. And along the way, the startups immersed him in the increasingly important disciplines of environmental monitoring and synthetic biology.

INCENTIVES
- » Return on investment
- » Protecting investments of FFFs
- » Teaching the next generation of startup artists

CREDENTIALS
- » Master of Business Administration
- » 5-startup resume
- » Return investors
- » 500,000+ Instagram followers

INSTRUCTION
- » Startup hubs
- » Online incubators
- » FFF mentors
- » Traditional professors
- » Customers

CURRICULUM
- » Technical documentation
- » Social media branding
- » Business administration
- » AI-assisted startup business modeling
- » Curriculum development

INFRASTRUCTURE
- » Social media management platforms
- » Data analysis platform
- » Sensor networks
- » Strong FFF network
- » Free nine-year education

STANDARDS
- » Traditional university accreditation standards
- » Attracting investment capital as business model validation
- » Rayan's own prototype assessments for startup skills

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The Speedrunner

YABANI

Age in 2030: **27**

In the world of electronic games, a speedrunner is someone who "beats the game" by playing rapidly through all the levels of the game in record time.

In the real world of 2030, Yabani has turned his life into a speedrunning game, using simulations to rapidly guide his work+learn path and adapt to the chaos that is Lagos.

With little institutional support and fewer funds, Yabani has been building his own work+learn path since he was 9. He taught himself to speedrun by playing dozens of games, giving himself a gaming model for life. At 16, he turned this model into an actual simulation model of his life. It's a "two-state goalsetting simulation model" that creates two scenarios for his life: his present situation (state 1) and his desired future state (state 2) for more than 100 variables, including everything from personal skills to environmental conditions.

Having carefully modeled both states, Yabani can play out the path from state 1 to state 2, just like a video-game, running many iterations to find the optimal path. He can update the model, adding variables. He can then tap into online platforms and networks to get the instruction he needs for each stage of the path.

Along the way, Yabani has deployed his natural inventiveness to create several medical electronic devices that have become the basis for micro-businesses serving niche markets. He has also managed to patent several of these devices and sell them for royalties. At 27, he now holds 9 patents. The income streams from these various sources allow him to hire other speedrunners to test his life simulation for work+learn paths he might not find himself. He chose his crew of life speedrunners not just for their novel pathfinding potential, but also for their distinctive online performance styles on video streaming platforms. So it's not surprising that he has developed quite a following of people who want to learn to speedrun their own lives—or just get advice from the guy who started it all.

The result? Yabani is now building his own life-coaching platform using his speedrunning model to help young people everywhere find and test their own work+learn paths.

YABANI'S SKILLSET

- Gaming
- Data-driven modeling
- Two-state simulation
- Path optimization
- Socially sourced learning
- Medical device design
- Opportunity hacking
- Online hiring
- Public online performance
- Online coaching

YABANI'S PEAK PERFORMANCE PATHS

Yabani's peak performance path combines a deep self-knowledge with his ability to see himself as part of a system that he can simulate to build the future he wants—a future that will continuously evolve as he simulates it.

MAKE YOURSELF KNOWN: Achieving self-knowledge through iterative simulation

celebrity — **visibility** — **self-knowledge**

BEFRIEND THE MACHINES: Model building for two-state simulation

curation — **creation** — **simulation**

BUILD YOUR CREW: Platform hiring to test alternative paths

startups — **communities** — **networks**

MAKE SENSE: Coaching others to speedrun their lives

narratives — **operational frameworks** — **ecosystems**

KEEP IT GOING: Adapting personal vision to the evolving environment

caring — **sharing** — **evolving**

YABANI'S LEARNING STACK

Yabani's learning stack reflects his self-taught path. Leaving school at an early age to support his parents, he apprenticed in a health clinic to learn the basics of health care—and some medical diagnotics along the way. Using online resources, he taught himself the fundamentals of electronic circuit design. He married these practical skills to his speedrunning experience and online learning about simulation and modeling, mostly through technical documentation for digital tools. His experience in the health clinic also gave him the people skills to inspire and coach his emerging network of online followers.

INCENTIVES
- » Product royalties
- » Coaching income
- » Self-improvement
- » Teaching others

CREDENTIALS
- » Platform ratings
- » Patents
- » Product reviews
- » Twitch followers
- » GitHub profile
- » Speedrunning championships

INSTRUCTION
- » Local mentors
- » Task-specific online guides and coaches

CURRICULUM
- » Hackathons
- » Innovation challenges

INFRASTRUCTURE
- » WhatsApp for hiring, coaching
- » Unity for building simulations
- » YouTube for low-level skill building
- » Custom website

STANDARDS
- » Personal simulations that set the parameters for his personal learning

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The DJ

ABIEYUWA

Age in 2030: **24**

Abieyuwa—better known to her public simply as Yuwa—was not even born when Paul McCartney recorded his famous post-Beatles album, *Band on the Run*, in Lagos. But she knows it was a milestone moment for the city's music scene, where it seems to her that milestone moments now occur nearly every day in the messy world of 2030.

Ask Yuwa what she's up to, and she'll tell you that her life—her art as a DJ—is all about getting to those milestones just ahead of everyone else, creating moments that local people will remember for the rest of their lives. Maybe even creating moments that will change the rest of their lives.

For Yuwa, this "art of the DJ" is about three things.

First, it's about knowing where to find community spaces and knowing how to engage her public to turn these spaces into high-style scenes for making sense out of a world in transition. The latest fashions remix the scenes and sounds of a century ago with augmented reality audio-video immersions. *Was this really what it felt like to be in a cabaret in the 1930s?*—Well, not exactly. These are new sound-body-humanity experiences that that haven't hit the streets yet, but will next week, or the week after.

Second in Yuwa's playlist of skills is knowing how to put together a soundscape that's more than just an audience-pleasing set of tunes. She'll tell you the tunes are all about weaving a story, together with her in-that-moment community, about the past, present, and future of Lagos, of Nigeria, and maybe even the whole planet. And it's not always the mainstream story.

Third, and in many ways the most exciting for Yuwa, is knowing how to learn from others. It has meant apprenticing herself to a DJ master to access sound resources and learn inventive remix secrets. But it also means convening fellow DJs, artists, and even fans for group critiques: demos of current work, discussions of the stories they tell, or even just sharing tips about gigs and the often unfathomable world of DJ finances.

Yuwa knows that the DJ path is a young person's path. At 24, she may only have another decade or so before her image starts to fade. But she's betting that her ability to bring communities together and tell important stories will outlast her current shine. In the end, the DJ's art is improv, and she's sure she'll be ready to improv what comes next.

YUWA'S SKILLSET

- Public performance
- Self-promotion
- Art of the remix
- Multimedia storytelling
- Improvisation
- Scene design
- Community co-creation
- AV-AR technical skills
- Event logistics

YUWA'S PEAK PERFORMANCE PATHS

Yuwa's path to her peak-experience performances demands celebrity, but these performances also put a combination of curation and creation front and center, with a bit of simulation tossed in for a 21st-century edge. Community building, storytelling with musical scenes, and sharing her art across her network round out her strategies.

MAKE YOURSELF KNOWN: Building celebrity with an aesthetic identity

BEFRIEND THE MACHINES: Creating a new sound aesthetic in augmented reality

BUILD YOUR CREW: Engaging communities with scenes and spaces

MAKE SENSE: Using sound experiences to craft important stories

KEEP IT GOING: Sharing her craft through peer critiques and performances

YUWA'S LEARNING STACK

Yuwa's learning stack starts and ends with celebrity, as measured by the size of her audiences and the reviews of her events. But the path to that celebrity has connected the dots between an apprenticeship to build a basic repertoire, on one hand, and on the other, the hard-earned skill of creating scenes and spaces for standout community experiences that amplify the reputation of Lagos as a world-class music scene. Her path has also been a highly social path, connecting word-of-mouth referrals to peer practice and critique sessions. Her informal curriculum has given her a unique combination of technical, artistic, and practical skills.

INCENTIVES
- » Fame
- » Experiential moments
- » Self-expression
- » Enough money to survive
- » Social impact

CREDENTIALS
- » A track record of "getting their first"
- » Her mentor's reputation
- » Online reviews of her "scenes"
- » Word-of-mouth referrals

INSTRUCTION
- » Online mentorship from successful DJs
- » Peer critique circles, online and in person
- » Peer technology coaches
- » Self-instruction

CURRICULUM
- » Sound collections & remix arts
- » Local music and film scene
- » Local and global social history
- » Fashion, space, and augmented reality (AR) design
- » Community space logistics
- » Storytelling

INFRASTRUCTURE
- » Neighborhood networks
- » Internet access
- » Reliable electrical power
- » Community spaces

STANDARDS
- » IP structures
- » Audio-video formats
- » AR formats

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The Eco-maker

SOFIA

Age in 2030: 23

Sofia likes to describe herself as a stranded asset. A *grano de arena*—or grain of sand—buried in the detritus of the largest city in the Western Hemisphere. Indeed, she often feels like she's buried in the trash of the entire planet, which is unmistakably in trouble.

But, in truth, she's not really stranded. She would be if she hadn't discovered, just a couple years ago, the community of Zero Waste *hermanas*—her sisters on sites like WhatsApp and Instagram. Already, two years later, ten of these *hermanas* have banded together in an on-line coop to produce and sell eco-friendly products.

As mothers of infants, they started with diapers. They had to create their own crash course in DIY eco-products, searching for YouTube videos that showed how to handcraft reusable versions of the disposable diapers that filled the city's dump sites. They had no problem setting up a smart retail website, using off-the-shelf software with a small startup fund they all contributed to. This was the beginning of their little co-op.

Next Sofia and her friends expanded their product line with other handcrafted products as well as recycled products from a growing network of online suppliers. These makers were becoming more and more sophisticated everyday, using tools like photo-recognition software to survey the contents of landfills for reusable materials. The co-op even teamed up with some makers of earth-friendly fertilizers made from nutrients recovered from local waste water. Their smart retail software helped them grow—and keep up with increasing demand.

As business has grown, the little eco co-op has changed the way the *hermanas* work and live. They now share childcare on a regular schedule. If one of the *hermanas* gets sick, the others pitch in to help with the online store and household chores alike. "It's better than sick pay," says Sofia. "Who else has co-workers who come over and cook and wash your dishes for you when you're sick?"

In the end, Sofia says, "we're doing this for our babies. We want to leave them a good planet. It's our few *granitos de arena*, those little grains of sand that we hope will make a difference."

SOFIA'S SKILLSET

- Online learning—WhatsApp & YouTube
- Values-based marketing
- Maker supply network development
- Eco-product design
- DIY eco-product manufacturing
- Co-op design and management
- Retail website design & management
- Online order fulfillment
- Childcare

SOFIA'S PEAK PERFORMANCE PATHS

Sofia builds her peak performance around her eco co-op, sharing everything from her online identity to her personal knowledge and resources with her *hermanas* and their extended network. Her starting place is always ecosystem thinking.

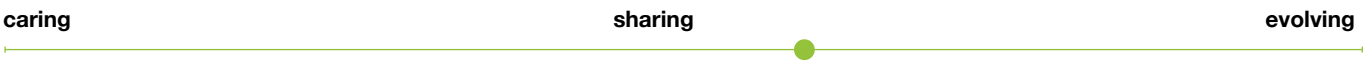
MAKE YOURSELF KNOWN: Building a co-operative identity online

BEFRIEND THE MACHINES: Creating a smart digital storefront for eco-maker products

BUILD YOUR CREW: Tapping the Zero Waste network to an build eco-friendly business

MAKE SENSE: Championing eco-system thinking

KEEP IT GOING: Sharing earning and learning in an eco co-op



SOFIA'S LEARNING STACK

Sofia's learning stack is almost entirely built on online resources, from Zero Waste online DIY communities to maker forums where they both learn and share their own knowledge. While a basic income is part of her incentive structure, she is a values-driven learner who uses her Zero Waste focus to define her learning path and her skill development as a maker. Her *hermanas* in the co-op are co-learners as well as co-owners and co-workers, and they have created an efficient division of learning labor among themselves without sacrificing their "everyone-can-pitch-in-for-everyone-else" ethic. Their online success, measured by both orders and ratings, is their credential.

INCENTIVES
- » Basic income
- » Cooperative experiences
- » An eco-friendly legacy

CREDENTIALS
- » Online storefront ratings
- » Online orders

INSTRUCTION
- » Online maker forums
- » Online DIY videos
- » Online Zero Waste community
- » Smart retail software user videos
- » Co-workers and suppliers

CURRICULUM
- » Zero Waste principles
- » Ecosystem thinking
- » Maker strategies
- » Online retail
- » Website management
- » Co-op structures and management

INFRASTRUCTURE
- » Internet access
- » Mobile and computer-based retail software
- » Smart website software
- » Co-operative legal structures

STANDARDS
- » Zero Waste standards
- » Online retail standards & best practices

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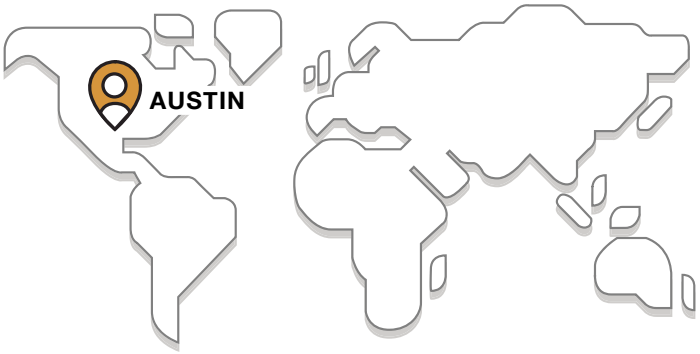
The Climate Changer



OLIVIA

Age in 2030: **24**

Olivia has always been a frontline sort of person, and her geographic resume proves it. She has worked at five climate disaster sites in the past year alone, from the wildfires in British Columbia to climate rescue operations in Hawaii, migrant settlements in Uganda, and most recently, post-flood restoration in her hometown of Austin.

Olivia grew up in the progressive education system of this capital city of Texas. She graduated from the city's Early College High School program, earning an associate degree in environmental studies alongside her high school diploma. But in spite of her academic potential, she just couldn't continue in this track. It all seemed so abstract when climate disasters were piling despair on top of grief in communities around the world.

She got herself trained as a volunteer firefighter and earned her first community award in the fire tornados of Northern California. The science of firefighting was changing as fast as the climate. Volunteers wore instrumented jumpsuits and uploaded sensor data during their breaks. The sensors measured everything from heat levels to changes in the microbiome as flames ripped communities apart. Olivia watched the data visualizations update in real time and found herself telling reporters what the pictures meant in practical terms. One of the news outlets hired her as a stringer, which helped pay for her itinerant lifestyle.

After a couple adrenaline-filled years around the world, Olivia realized that it was those ripped-apart communities that really tugged at her heart. She shifted her focus from fighting fires to fighting the anguish in post-disaster settlements. Traveling from disaster to disaster, she amassed a portfolio of strategies for helping people reimagine their lives and rebuild communities. She worked with teams of technicians to build empathy and resolve conflicts using VR scenes that helped people experience what others were feeling in the wake of disaster.

But she realized that the best way to build both empathy and hope was to give people community spaces and the power to make their own decisions about those spaces. She sought out such communities and documented their successes, using just her smart phone camera and a small foundation grant. Gigabytes of video clips and photos turned into an award-winning training program for disaster relief workers.

"I don't want to be a hero," says Olivia. "I just want to help communities realize the power they have to make the lives they want, even in the face of global calamity."

OLIVIA'S SKILLSET

- Firefighting
- Emergency medical skills
- Rescue and recovery
- Survival skills
- Environmental data analysis
- Community reconstruction
- Empathy mapping
- Documentary photography
- Disaster relief training

OLIVIA'S PEAK PERFORMANCE PATHS

Olivia's peak performance path blends simple and not-so-simple tools for making her frontline experiences visible—along with a commitment to helping communities reinvent themselves in the midst of disaster.

MAKE YOURSELF KNOWN: Building a geographic resume

BEFRIEND THE MACHINES: Collecting and analyzing wearable data

BUILD YOUR CREW: Assisting bottom-up disaster relief communities

MAKE SENSE: Documenting innovative disaster response options

KEEP IT GOING: Envisioning recovery in community spaces

OLIVIA'S LEARNING STACK

Olivia's learning stack is built on frontline experiences informed by formal certifications that give her access to those experiences. Her Early College High School gave her the basics to make sense of climate disasters and, in some cases, to guide her responses. But much of her learning happens in interactions with people and wild nature—natural phenomena that are unprecedented in human history. Like many people in 2030, she's living on a minimal universal basic income and support that she patches together from many different sources. In her case, these sources vary from small training stipends to the food and lodging provided to frontline volunteers.

INCENTIVES
- » Visible impact in the world
- » Frontline experiences
- » Sustaining income
- » Hope

CREDENTIALS
- » Associate degree in environmental studies
- » Community certifications in firefighting, EMT, disaster counseling
- » Community awards
- » Geographic experience
- » Award-winning training program

INSTRUCTION
- » Frontline experiences
- » Certification trainings
- » Community interaction

CURRICULUM
- » Environmental studies
- » Firefighting, emergency medicine & rescue and recovery
- » Community reconstruction
- » Data visualization and interpretation

INFRASTRUCTURE
- » Formal educational institutions
- » Formal certification systems
- » Sensor networks
- » Community spaces
- » Mobile media
- » Universal basic income

STANDARDS
- » Traditional educational standards
- » Job performance requirements
- » Safety standards

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The Autoconsciente

HANNAH

Age in 2030: **20**

Autoconsciente. It's a Spanish word that means a self-aware person, and for Hannah, it's what her life is all about.

Hannah first learned this word when she was 13, living with her family in Puebla, Mexico. Her mother had relocated the family from Berlin to take an assignment with the Volkswagen operation there. It was a tough transition for Hannah as she entered the American international school and struggled to integrate English, German, and Spanish into her learning strategy—a strategy that was already challenged by her neuro-atypical brain.

Hannah's brain simply didn't work like other people's brains.

Sometimes, it made stunning leaps of insight. But other times, Hannah struggled to write even simple sentences. To help Hannah, her mother found a tutor, a young woman who was a neuroscientist and artist working with a team of technicians to develop a personal neuro-imaging feedback system using augmented reality.

Wearing AR glasses and neurosensors, Hannah could literally watch her brain absorb her lessons—or not! It was like having a superpower that helped her visualize when her brain was and wasn't processing the information around her. She even learned to track her brain activity and recognize when it was on the verge of one of those leaps of insight.

When the family returned to Berlin three years later, Hannah immediately contacted the Freie Universität and arranged an early college admission and internship with a team of neuroscience researchers there. Her AR feedback system helped her navigate the rigorous curriculum, but what really interested her was using her system with other neuro-atypicals. With earnings from her part-time bakery job, she bought another AR headset and invited her brain-different friends to meet her in cafés, parks, and even movie theaters.

They talked about what they were experiencing and how the neuro-feedback changed those experiences. They even traded headsets so that they could see each other's experience directly. By now, Hannah was familiar with her own brain patterns, so it was fascinating to see how different her companion's brain patterns often were. She wondered if she would start to think like them if she wore their headsets for a long time.

"Of course, it isn't all about the brain," Hannah says. "We could also have feedback systems for our gut, which is closely tied to our brains. It's like we're creating a new exo-brain for ourselves—a new level of self-awareness. I feel like we're actually evolving our human ability to be *autoconsciente*."

HANNAH'S SKILLSET

- Self-observation
- Self-directed learning
- Data visualization
- Neuro-visual ethnography
- AR-enhanced cognition
- Visual storytelling
- Journaling
- Neuro-atypical advocacy

HANNAH'S PEAK PERFORMANCE PATHS

Hannah's peak performance path is built on an ever improving understanding of how her brain works—and therefore how she learns. This path makes use of the latest in neuro-feedback imaging tools to gather data about herself and other neuro-atypical individuals, while her personal visual journals help her tell the story that her brain is telling her.

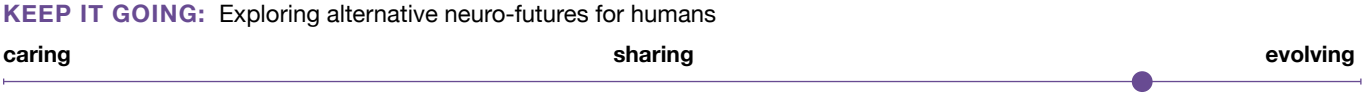
MAKE YOURSELF KNOWN: Building self-knowledge through neural feedback

BEFRIEND THE MACHINES: Curating quantitative and qualitative neuro-experiences

BUILD YOUR CREW: Cultivating conversations with neuro-atypical people

MAKE SENSE: Visual journaling of learning experiences

KEEP IT GOING: Exploring alternative neuro-futures for humans



HANNAH'S LEARNING STACK

Hannah's learning stack is built on a foundation of free education in a world-class university, combined with her own distinctive social learning style and personal self-observation. She takes advantage of research internships to publish her insights, but depends on her work outside the lab to extend the science of interpersonal brain behavior to conversations among people with atypical brain function and learning behavior. She sees the extensive collection of her own neuro-feedback images both as credentials for her work and as data to support her unique ideas about human learning and evolution. All this work depends, of course, on the continued evolution of brain imaging and AR systems and standards.

INCENTIVES
- » Self-knowledge
- » Self-improvement
- » Social contribution

CREDENTIALS
- » Neuro-internship resume
- » Personal neuro-history visualizations
- » Personal journals
- » Published research papers

INSTRUCTION
- » Neuro-tutoring
- » Research labs
- » Self-observation
- » Personal neuro-feedback system
- » Interactive neuro-experimentation

CURRICULUM
- » Neuroscience
- » Neuro-visualization
- » Augmented reality bio-feedback analysis
- » Alternative learning modalities

INFRASTRUCTURE
- » Free university education
- » fMRI technology
- » Wearable biosensor technology
- » Augmented reality eyewear
- » Basic ICT infrastructure

STANDARDS
- » Traditional university accreditation standards
- » University research standards
- » Neuroscience format standardization framework
- » Standardized neuro-data file format

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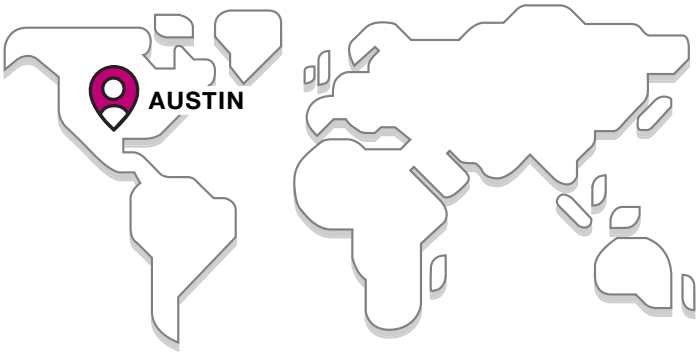
The Transitionist



LIAM

Age in 2030: **28**

Liam lives between two worlds: the world of "what is" and the world of "what could be." He believes that he was born for a world in transition, with a deep appreciation for the past but also a hunger to see what's next.

It's not surprising, then, that Liam has repeatedly found himself in the role of translator between past and future. And in the world of education and learning, he sees himself as a bridge between formal systems of learning and the dizzying array of informal paths that continue to unfold at breakneck speed.

Liam went to University of Texas in Houston to study foresight, earning joint masters degrees in foresight and education. He found himself teaching urban history to students in the Early College High School program, but quickly realized that they were miles ahead of him in their mastery of online resources, games, and social media as tools to learn about the past.

His response? He organized a reverse teaching class in which students and teachers met together twice a week for co-learning sessions where both groups hurtled through informal digital resources to speed-learn both tools and topics.

One topic was a regular standout: social justice. And so Liam organized a course to create a virtual museum of social justice. The students learned everything from how to secure funding for the online museum to how to build VR experiences of moments from the past. Liam encouraged them to focus not on social *in*-justices from the past but rather on examples where new strategies for justice emerged. This practice eventually led the students to extend their museum into a platform for social impact investing.

The visibility of the museum and the success of the platform brought Liam to the attention of Austin's mayor, who invited him to join his staff as Chief Innovation Officer at the surprisingly young age of 26. His assignment: to work with the city's young people to "hack" all the bureaucratic systems—in the tradition of hackathons—and to jumpstart new infrastructures for everything from governance to public spaces to international city-to-city relations.

"It's really a new kind of classroom," Liam says of his assignment. "And I'm working on integrating it into the Early College High School program, so high school students can earn an associate degree in urban foresight while actually reinventing the city."

LIAM'S SKILLSET

- Teaching and co-teaching
- Formal and informal learning
- Foresight and design futures
- Bridging past and future
- Using digital media as teaching tools
- Innovating learning processes
- Reinventing urban systems
- Leading change

LIAM'S PEAK PERFORMANCE PATHS

Liam's peak performance paths focus on building visibility by building celebrity for this hometown, using diverse media and hacking traditional systems to foster continuous evolution of learning paths for himself and others.

MAKE YOURSELF KNOWN: Creating visible projects that celebrate the city

BEFRIEND THE MACHINES: Using VR to explore the past and build the future

BUILD YOUR CREW: Engaging young people in change-making projects

MAKE SENSE: Hacking urban ecosystems to make the future

KEEP IT GOING: Continually reinventing learning platforms

LIAM'S LEARNING STACK

Liam's learning stack uses a strong foundation in traditional education as a launching pad for innovation and experimentation, both in his own learning and that of his students—and ultimately in the social systems of the city where he lives and works. His work+learn path is fluid, allowing him to move from school to museum to social impact platform to the mayor's office, building a kind of collaborative visibility for everyone he works and learns with. He's a champion for reverse mentoring of his fellow teachers, learning the chameleon informal systems alongside them. He's also turning his hands-on learning about the urban ecosystem into a platform for his students to learn alongside him.

INCENTIVES
- » Public role & recognition
- » Social impact
- » Continuous learning
- » Stable income

CREDENTIALS
- » Dual masters degrees in foresight and education
- » Community recognition and awards
- » Public position in the mayor's office

INSTRUCTION
- » Traditional professors
- » Students as reverse mentors
- » Public projects
- » Public innovation platforms

CURRICULUM
- » Foresight and futures by design
- » Theory of education
- » Digital-social learning tools
- » History of social movements
- » Virtual reality environments
- » Museum installations
- » Urban ecosystems

INFRASTRUCTURE
- » University system
- » Innovative high school system
- » Internet and social media platforms
- » Immersive VR tools and platforms
- » Office of Innovation in the mayor's office

STANDARDS
- » Traditional university accreditation standards
- » State secondary school requirements
- » City rules and regulations

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The Global Citizen

AYAH

Age in 2030: **26**

Like many smart young women from Jeddah, Ayah jumped at the chance to study abroad. Unlike many of her peers, she chose to study in the near-arctic city of Helsinki at Aalto University.

Finland, and Aalto University in particular, were known as innovation centers, and innovation was the name of the game in the Kingdom, especially as climate change accelerated the race to transform the economy. In the chilling and dark winters of Helsinki, Ayah and her fellow students gathered in the steamy realms below the city streets to debate the direction of human society, the evolution of global culture, and the future of global citizenship. It was here that she first heard about the e-residency experiments of Estonia to provide services to location-independent entrepreneurs.

Ayah recognized the potential of such alternative citizenship structures to spur innovation. She soon learned of Bitnation, another experiment that described itself as the first "decentralized borderless voluntary nation." Using the Ethereum platform of smart contracts, Bitnation organized the first blockchain-based world citizenship ID, along with global registries for marriage certificates, birth certificates, and land titles. Most interesting to Ayah, it was issuing refugee emergency IDs to the growing number of climate refugees looking for safe havens around the world—but especially in Berlin.

She registered herself on Bitnation as a World Citizen and moved to Berlin to study the impacts of global ID platforms on both stable and transient populations. In this storied city of academic heroism, she congregated with Bitnation supporters and detractors to debate global citizenship. In letters to her brother back in Jeddah, she argued that the importance of these experiments in global citizenship stems not so much from the specific services they promise but from the critical thinking and cross-cultural insights that flow from these informal but intense discussions.

When her brother challenged her to bring some of these insights back home, she signed up as a Bitnation Ambassador to organize investors and entrepreneurs using this global governance network. She decided to start in KAEC—King Abdullah Economic City—a zone where many smart but socially isolated young people were sometimes struggling to discover their life paths. There, Ayah quickly found a community ready to expand their global online relationships and become asset managers of Bitnation registries.

"Digital citizenship is not a substitute for local community," she says. "It's a starting place for meetups of young people to think together about how their local communities can connect to a fast-changing global society."

AYAH'S SKILLSET

- Applied innovation
- Applied citizenship
- Citizenship services
- Migrant legal support
- Peer debate
- Critical thinking
- Learning meetups
- Entrepreneurial networking

AYAH'S PEAK PERFORMANCE PATHS

Ayah's peak performance paths all use digital global citizenship as a platform for innovation, starting with making herself visible to a borderless nation of innovators and then convening people in real communities to reinvent what it means to be entrepreneurs in an evolving global economy.

MAKE YOURSELF KNOWN: Leveraging a worldwide legal identity

celebrity — **visibility** — **self-knowledge**

BEFRIEND THE MACHINES: Developing blockchain-based citizen services

curation — **creation** — **simulation**

BUILD YOUR CREW: Convening meetups of BitNation citizens and entrepreneurs

startups — **communities** — **networks**

MAKE SENSE: Reinventing the concept of citizenship for a global nation

narratives — **operational frameworks** — **ecosystems**

KEEP IT GOING: Using global citizenship as a platform for innovation

caring — **sharing** — **evolving**

AYAH'S LEARNING STACK

Ayah's learning stack appears quite traditional at first glance, but it's simply the stable foundation for exploring a much more inventive, even revolutionary approach to organizing human activities. She's helping build new structures for both global governance and global commerce. And even though the distributed, digital Bitnation Ambassador Network seems like a not-so-social starting place for human invention, Ayah's learning strategy is fundamentally social. For her, learning happens in small groups through human discussion and debate. So does real innovation.

INCENTIVES
- » Innovation
- » Social pioneering
- » New global identities
- » Entrepreneurial opportunities
- » Citizenship in the future

CREDENTIALS
- » Bachelor's degree in Innovation
- » Masters degree
- » Bitnation Ambassador Network

INSTRUCTION
- » Traditional professors
- » Entrepreneurship projects
- » Peer-to-peer debate

CURRICULUM
- » Global entrepreneurship
- » Digital identity management
- » Blockchain logic
- » Migrant community development
- » Economic development
- » Critical thinking

INFRASTRUCTURE
- » Traditional educational institutions
- » Internet
- » Bitnation platform
- » Café society

STANDARDS
- » Traditional university accreditation standards
- » Ethereum smart contract code

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