

#### **Unit Overview**

In today's society, digital technology has paved the path for entrepreneurs and successful businesses. Some of these businesses have disrupted the market (created a share economy like Airbnb and Uber) and would not be effective without the use of digital technology. Students will study the implications and affordances of using digital technologies to become entrepreneurs.

Students will work collaboratively and create business that uses digital technology as it's building block for success. Students will be given the opportunities to plan and create a business idea that leverages digital technologies. They will attempt to solve a problem, find appropriate stakeholders and collect data to ensure the concept is appropriate for their target audience. Once students have finalised their idea they will design the digital platform to complement their business idea. Students will base their designs on functional and non-functional requirements. Students will build a prototype of their business digital platform. A final pitch will include a run through of the digital prototype and a presentation that includes how the business targets the buyer's needs through data collection, user experience and is an innovative idea to a problem within society.

#### **Curriculum Targeted Areas**

The digital technology is central to this unit of work. Areas of interest may include:

- Design and Technology
- Economics
- Critical and Creative Thinking

Further investigation into these areas is required to ensure they align with the following activities. Activities may need to be modified to ensure content descriptions and achievement standards are met.

#### **Australian Curriculum Alignment**

The following sessions have been created using the Australian Curriculum: Digital Technologies Curriculum. Activities may need to be modified to ensure state Digital Technologies Curriculum Standards/Syllabus are met. ACS has support and documents to help align this unit to other Digital Technology Curricular.

#### Session

'Session' has been used to define the order of tasks to complete the unit. It does not define a set time required to complete the task. Time allocated to complete a session is the teacher's discretion. This allows for flexibility for to drive the duration of the task and make modifications if necessary. Sessions can be merged into one allocated class period or may run over multiple periods.

#### **General Purpose Programming Languages**

This unit does not include general purpose programming language. The primary focus is design thinking and using the skills of design to create a digital solution. General purpose programming is not a focus for this unit and therefore is not included. The creation of 'Stress Less!' ensures other areas of the curriculum have been targeted and provide rich assessment tasks.

# acs

#### **Key Preparation**

#### **App building Programs**

Thunkable is the chosen platform for students to create a prototype for their app. The program to create the app will depend on the school's resources and access to digital technology. Investigation into other platforms may be required if Thunkable is not suitable.

#### **Thunkable Videos**

To support the use of Thunkable, videos have been created to help understand coding behind different components used to develop a prototype. These videos can be used as resources to upskill the teacher to ensure they have some knowledge of the of functions and coding possible in Thunkable. These can also be used as a resource to pass onto students. The Thunkable community contains tutorials to help with functions that may go beyond the content provided.

#### Examples of promote successful entrepreneurs

Health and Wellbeing	Entertainment	Buying and selling	Share Economy	Social
Zombies, Run!	Netflix	Carsales	Uber	WhatsApp
https://zombiesrungame.com/	https://www.netflix.com/au/	https://www.carsales.com.au/	https://www.uber.com/au/en/	https://www.whatsapp.com/
Charity Miles	Kanopy	The Volt	Airbnb	Instagram
https://charitymiles.org/	https://www.kanopy.com	https://www.thevolte.com	https://www.airbnb.com.au/	https://www.instagram.com/
Happify	Emoji Edit		Airtasker	Snapchat
https://www.happify.com/	https://www.mojiedit.com/	Education		https://www.snapchat.com/
		Math Mate	List of Share sites	
		https://mathmate.education/	https://www.ratecity.com.au/top-	
			30-sharing-economy-sites	





Key U	nderstandings	Key Questions
Studer	nts will:	How can we use digital technology to create a small business and earn money?
•	Analyse how current digital technology is used to help	How has digital technology been used to help create and promote businesses? What are the
	entrepreneurs make successful businesses.	founders' stories?
•	Design and develop a digital platform based on identifying the	What problem can you solve by using digital technology?
	needs of a group of users (stakeholders).	How do you know your solution is appropriate for your stakeholders?
-	Engage with stakeholders to collect and collate data to ensure the	What type of data do you need to collect to ensure you are targeting your stakeholders?
	design will appropriately address the defined problem.	What type of app would you create to solve your problem?
-	Evaluate and analyse their design based on a set criterion.	What functions are necessary for your app to work?
		What content will you use in your design? How will you use texts, images, videos and sound in
		your app? How have you taken into consider user experience?
		How does your prototype function?

#### **Key Vocabulary**

Hardware, software, networked systems, security implications, qualitative data, quantitative data, privacy, visual data, functional, non-functional requirements, stakeholders, user experience, functionality, accessibility, usability, aesthetics, digital solutions, future risks, sustainability, innovation, iterative collaborative approach



### Levels 9-10



Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity	
1.	Exploring digital technologies	Learning Intention Students will evaluate popular and current technologies that are used for business adventures and entrepreneurships. Success Criteria I can identify and evaluate how popular apps demonstrate innovation and opportunities for enterprise.	Discuss with students the types of technology they use on a regular basis. Discuss with the different ways to make an income. Focus attention on the role that digital technology has made on businesses to make steady incomes.	Students brainstorm different technologies and apps they use on a regular basis. They group these into themes (education, entertainment) Student briefly look into these different apps/digital platforms. They look at: The purpose of the app/digital platform. Privacy and data collection. Costs and earnings.	
Session Resources	ACS Teache	r Resource: Real World Problems			
2.	Entrepreneurship	Learning Intention Students will explore and evaluate established and/or start-ups use of technologies used for business adventures.	Look at the journey of well-known app focus on: The problem solved. The development of the business. The user experience for users within the digital device and platform.	Students use the same evaluation process from the introduction session. They choose a selection of founders/technology and evaluate them. This time, focus on the problem these founders are solving.	
		Success Criteria I can evaluate how businesses are using technology to develop innovative business adventures.			
Session Resources	<ul> <li>ACS Teacher Resource: Real World Problems</li> <li>Existing Tech Evaluation</li> <li>Collection of Australian Founders: Female Founder Stories (see below for interview excerpts) Math Mate <u>https://rise.articulate.com/share/lbHr77tr1cQifBKdiZalfYXbkGOa4YmB#/</u> BOP Industries <u>https://www.youtube.com/watch?v=8NAOOcKF6dl&amp;feature=player_embedded</u></li> </ul>				
	Moji Edit https://www.smartcompany.com.au/entrepreneurs/meet-moji-edit-sydney-startup-founded-twins-scored-half-million-users-two-months/				

Levels 9-10



Session Number	Session Topic	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity
3.	Defining a problem	Learning Intention Students will create a problem that can be addressed and solved through a digital platform. Success Criteria I can formulate a problem that can be solved by using technology.	Together students share experiences and problems they face on a regular basis. Unpack the problems based on issue at home, at school, with hobbies (sports or recreation), working life.	Students commence to generate a problem and investigate solutions using digital technology. Once a high-level solution is generated, they commence unpacking the idea further by answering a set of questions. They create a profile of a stakeholder to ensure they are addressing the 'right' problem.
Session	Student D	esign Brief		
Resources	Stakehold	er Profile		
4.	Acquiring stakeholder data	Learning Intention Students will create a survey to ensure their design is solving the right problem for their stakeholders. Structure of the survey will include quantitative and qualitative questions. Success Criteria I can generate a survey that contains qualitative and quantitative questions for my stakeholders.	Pose the question – how do you know your stakeholders will find your design useful? How do you know you are targeting your stakeholders' needs?	Students create a list of qualitative and quantitative questions to ask their stakeholders. They chose a format that will allow easy collections and collation. Students will spend time collecting responses to their questions (this can be set as a homework/out of school hours if time is restricted).
Session Resources	ACS Teach	er Resource: Data		



### Levels 9-10



Session	Session Topic	Learning Intention and Success	Introduction/Teacher Instruction	Whole Class Activity	
Number	Focus	Criteria			
5.	Interpreting stakeholder data	Learning Intention Students will collate data into meaningful representation and use the representations to evaluate their app idea. Success Criteria I can visually represent data so it can be interpreted. I can reflect on how this data has influenced my idea and design.	Pose the question – how can you present your data so it easily represents your stakeholders' needs? Discuss the importance of data and how to visually represent the data.	Students collate their data. From the data they have collected, students will create a graph that easily visualises results from their data collection. Students will present these findings to their class. They will reflect on how the data has influenced/justified their design.	
Session	ACS Teach	er Resource: Data			
Resources					
6.	Designing the prototype	Learning Intention Students will create a story board that visualises their design. The design will incorporate functional, non-functional requirements and user experience. Success Criteria I can create a storyboard to visually represent my design.	Take an app that was evaluated and assessed in a previous lesson and create a story board of one or two screens. Discuss with students the user experience and why it is important to design an app with the user in mind.	Students create a storyboard of their app to include details of how different scrStudents justify how they have considered and implemented user experience into their designs. If time permits, continue with the story board and connect pages and emotions together. Students can use more screens to create a more detailed storyboard if required.	
Session	ACS Teach	er Resource: Real World Problems			
Resources	<ul> <li>ACS Teach</li> </ul>	er Resource: User Experience			
	Storyboard				



Levels 9-10



Session Number	Session Topic Focus	Learning Intention and Success Criteria	Introduction/Teacher Instruction	Whole Class Activity
7.	Flowchart	Learning Intention Students will create a flowchart that details the functions of their app. They will use the flowchart as a test case. Success Criteria I can create a flowchart and use the flowchart to help test my prototype.	Create a flowchart of a common app look at the different functions and discuss the benefits of creating a flowchart prior to building their app.	Students will create a flowchart of their app. They will create a flowchart that details different screens they need to create and how these screens will interact with each other.
Session Resources				
8.	Digital Prototype	Learning Intention Students will use digital program and create their app. Success Criteria I can code and create the functions I designed to create my app.	Prior to commencing using a digital platform, students create a list of skills they will be required to learn when using Thunkable. This list will help them design a process to code the screens for their app.	Students will commence programming their app. They will work through the tasks they need to complete based on the skills check list they completed. Completion of the digital prototype will be dependent on the amount of class time given to this portion of the project.
Session Resources	Thunkable	e Skills Check List with instructional videos		
9.	Creating a pitch	Learning Intention Students will create a pitch to showcase their ideas and app based. Success Criteria I can create a pitch to present my business idea.	Students are given a presentation template to use help organise and present their pitch.	In their groups, students prepare and create their pitch.
Session Resources	Pitch Tem	plate		

Levels 9-10



Session	Session Topic	Learning Intention and Success	Introduction/Teacher Instruction	Whole Class Activity
Number	Focus	Criteria		
10.	Final pitches and evaluation	<b>Learning Intention</b> Students will present their design and evaluate it based on a set criterion.	Students organise the room to create a pitch style set up. Students ensure all work is finalised and their pitch is prepared.	Students will present their pitch to 'The Board'. 'The Board' will be made up of teachers and guests and will evaluate each pitch and award one winning pitch.
		<b>Success Criteria</b> I can evaluate my app following a set of questions and prompts.		Students will complete an individual self-evaluation and group evaluation.
Session	<ul> <li>Design Eva</li> </ul>	aluation		
Resources				



Levels 9-10



	Assessment Rubric					
	At Risk	Below Standard	At Standard	Above Standard		
Evaluate existing APPs	Evaluated some technologies and founders with little to no detail.	Evaluated existing technologies and founders, answering the responses in limited detail.	Evaluated a minimum of 4 existing technologies and founders, answering all criteria in detail.	Critically evaluated existing technologies and founders. Designed an app that solves a real-world problem		
Analyse and visualise data	Created a survey, collected some responses. Didn't use visual display.	Collected responses to their survey. Used visual representations for the quantitative and qualitative data collected	Collected a minimum of 20 responses, incorporating a range of qualitative and quantitative data, used visual representations and reflect on the data they collected and outline how they used it to influence their design.	Collected a large sample of qualitative and quantitative data. Created their own visual representations and responded to each question with how they used it to influence their design.		
Design a user experience of a digital system	Started to create a storyboard to represent their design but was not finished. Started work on creating a prototype but did not complete it.	Created a storyboard to visually represent their design. They used this to create a prototype but not all functions work or was unfinished.	Created a storyboard to visually represent their design. This was used to create a prototype that is usable and functional.	Created a storyboard to visually represent their prototype design to a very high, detailed standard. They used this to create a prototype that is usable, functional and accessible.		
Presentation	Little to no effort put into presentation.	Some effort put into the organisation of their presentation and included some of the criteria	Great effort put into the presentation including all required criteria	Exemplary effort put into presentation. All required criteria met, and additional information added.		
Self- evaluation	Little to no effort put into the self-evaluation.	Completed all or part of the self- evaluation, including limited detail.	Completed all components of the self- evaluation in great detail	Completed all components of the self- evaluation in great detail, including more than the required information.		
Components	Completed some of the learning tasks associated with the task to a low standard.	Completed all or part of learning tasks associated with the task in limited detail	Completed all learning tasks associated with the task in detail.	Completed all learning tasks associated with the task in detail. Student also completed their own research and referenced their research.		

Comment:

### Levels 9-10



Assessment – Australian Digital Technologies Curriculum			
Content Description	Session	Assessment Piece	Assessment Statement
Investigate the role of hardware and software in managing, controlling and securing the movement of and access to data in networked digital systems (ACTDIK034)	N/A		
Analyse simple compression of data and how content data are separated from presentation (ACTDIK035)	N/A		
Develop techniques for acquiring, storing and validating quantitative and qualitative data from a range of sources, conserving privacy and security requirements (ACTDIP036)	4	Stakeholder survey	Students formulated quantitative and qualitative questions to generate data to identify their stakeholders' needs They considered privacy requirements to generate targeted data.
Analyse and visual data to create information and address complex problems, and model processes, entities and their relationships using structured data (ACTDIP037)	5	Interpretation of stakeholder data	Student collated the data into meaningful representation and used the visual representations to evaluate their design.
Define and decompose real-world problems precisely, taking into account functional and non-functional requirements and including interviewing stakeholders to identify needs (ACTDIP038)	6	Prototype design	Students analysed the functional and non-functional requirements that are necessary for their design to function correctly based on the needs of their stakeholders.
Design the user experience of a digital system by evaluating alternative designs against criteria including functionality, accessibility, usability and aesthetics (ACTDIP039)	8&9	Storyboard and digital prototype	Students created a storyboard to visual represent their design. They considered how user experience will influence their design.
Design algorithms represented diagrammatically and in structured English and validate algorithms and programs through tracing and test cases (ACTDIP040)	7	Flowchart	Students generated a flowchart to map out the functions of their app. They used this flowchart to product the users' journey and identify any potential testing issues.
Implement modular programs, applying selected algorithms and data structures including using an object-oriented programming language (ACTDIP041)	N/A		
Evaluate critically how student solutions and existing information systems and policies, take account of future risks and sustainability and provide opportunity for innovation and enterprise (ACTDIP042)	1, 2 & 10	Existing Technology Evaluation & Design Evaluation	Students critically evaluated current systems based on a set criterion that included innovation and enterprise.
Create interactive solutions for sharing ideas and information online, taking into account safety, social contexts and legal responsibilities (ACTDIP043)	N/A		
Plan and manage projects using an iterative collaborative approach, identifying risks and consider safety and sustainability (ACTDIP044)	Throughout the project		Throughout the project, students planned and managed their design using the iterative approach. They continually evaluated, assessed and modified their design based on development.

### Levels 9-10



Assessment – Victorian Digital Technologies Curriculum			
Content Description	Session	Assessment Piece	Assessment Statement
Investigate the role of hardware and software in managing,	N/A		
controlling and securing the movement of and access to data in			
networked digital systems (VCDTDS045)			
Analyse simple compression of data and how content data are	N/A		
separated from presentation (VCDTDI046)			
Develop techniques for acquiring, storing and validating quantitative	4	Stakeholder survey	Students formulated quantitative and qualitative questions to
and qualitative data from a range of sources, considering privacy			generate data to identify their stakeholders' needs They
and security requirements (VCDTDI047)			considered privacy requirements to generate targeted data.
Analyse and visualise data to create information and address	5	Interpretation of	Student collated the data into meaningful representation and
complex problems, and model processes, entities and their		stakeholder data	used the visual representations to evaluate their design.
relationships using structured data (VCDTDI048)			
Manage and collaboratively create interactive solutions for sharing	N/A		
ideas and information online, taking into account social contexts and			
legal responsibilities (VCDTDI049)			
Define and decompose real-world problems precisely, taking into	6	Prototype design	Students analysed the functional and non-functional
account functional and non-functional requirements and including			requirements that are necessary for their design to function
interviewing stakeholders to identify needs (VCDTCD050)			correctly based on the needs of their stakeholders.
Design the user experience of a digital system, evaluating alternative	8&9	Storyboard and	Students created a storyboard to visual represent their design.
designs against criteria including functionality, accessibility, usability		digital prototype	They considered how user experience will influence their design.
and aesthetics (VCDTCD051)			
Design algorithms represented diagrammatically and in structured	7	Flowchart	Students generated a flowchart to map out the functions of their
English and validate algorithms and programs through tracing and			app. They used this flowchart to product the users' journey and
test cases (VCDTCD052)			identify any potential testing issues.
Develop modular programs, applying selected algorithms and data	N/A		
structures including using an object-oriented programming			
language (VCDTCD053)			
Evaluate critically how well student-developed solutions and existing	1, 2 & 10	Existing Technology	Students critically evaluated current systems based on a set
information systems and policies take account of future risks and		Evaluation & Design	criterion that included innovation and enterprise.
sustainability and provide opportunities for innovation (VCDTCD054)		Evaluation	



Existing Technology Evaluation					
Торіс	Questions	Evaluation			
Basics	What is the name of the technology? Who or what company was responsible for created it?				
Explanation	Explain the idea behind the technology. What is the primary function?				
Problem solving	What problem is the technology trying to help solve? What need is it meeting? Who are the stakeholders?				
Functionality	Briefly explain how the technology operates. What are the functional requirements (what are the must haves of the app to make it work)?				
Innovation	How is this innovative? How has the technology developed over time?				
Privacy and Security Requirements	What user information do they collect? What is their policy on keeping data secure? Has there been a breach of data?				
Usability and aesthetics	Is your experience using this app a positive one? Are there any errors or glitches in the app? What seemed out of place? Did you like where buttons and links were placed? Any buttons or functions that didn't work properly? Any broken links? Looking at the design, what are 3 things you like about the app? What are 2 things you did not like about the technology and explain your answer				



Student Design Brief					
Торіс	Questions	Evaluation			
Explanation	What is the name of your technology ides?				
Problem solving	What problem do you want to solve for your user?				
Functional requirements	What do you want your product to do? What hardware/software do you need? What are their roles?				
Nonfunctional requirements	How would you keep data secure? How easy is it for the user to learn to use and manage the interface? What about response times?				
Privacy and Security Requirements	What potential issues could arise based on the data you are collecting and storing for your app?				
User Experience and Usability	Explain how the technology operates. How are the functions of the system interacting with the user? How does the user access information? How are you considering the aesthetics (colours, images and layout)? Any ideas on how you would like your screen to look? How will you move between screens? What will that function look like and where should it be placed?				
Possible issues	<ul> <li>What issues could come up for your user?</li> <li>How can you stop those issues from happening?</li> <li>What issues do you need to consider when you will design your app that the user might have when using your app?</li> </ul>				



Stakeholder Profile			
Questions	Evaluation		
What age bracket is your stakeholder?			
What does this mean for the user experience when creating your app?			
Gender, does this influence your design?			
What is a typical day/weekend for your stakeholder?			
Does your stakeholder work? What type of job would they have?			
Why would your stakeholder need your design? How would you help them?			
What are some questions you could ask to find out if your stakeholder group would use your product?			
What type of questions could you ask that will give you word answers?			
What type of questions could you ask that will get you numerical answers?			







#### Thunkable Videos

Skill	Thunkable Instructional Video	Student evaluation
		How does this skill help to build your prototype?
Introduction to		What skill are you going to learn hext:
using Thunkable	thunkable Beginner # 1	
	Product Overview & Creating Your First App	
Creating circular		
buttons	HOW TO MAKE CIRCULAR BUTTONS ON THUNKABLE	
Organising and		
moving	$\leftarrow \uparrow \rightarrow \downarrow$	
components	How to move things on your Thunkable app	
Adding animation		
	How to add animation to your apps	
Adding sound		
	Thunkable iOS Beginner App Tutorial #3 (Hour of Code)	
Publishing your		
app on iTunes	How to Publish to the App Store	



Design Evaluation		
Questions	Evaluation	
Self-Evaluation		
How successful were you building your digital protoype? How does your design solve a problem? How could it meet the needs of others? If you were to create another design, what would you do differently? Where there any design features that you liked from the other technologies and companies you evaluated? How could you adapt those to add to your app? What challenged you? How did you overcome those challenges? What excited you? What didn't work out for you? If you had the option to create any app – what would you create?		
Group Evaluation		
How does this design meet the needs of the user? Are there any limitations when using the app? What makes this design innovative? Did the developer create something that was different to your app? What type of risks or potential risks could occur?		

acs

**ACS Information Age** series profiled 12 women who have grabbed the entrepreneurial reins and ridden into the unpredictability of start-up life. These women share their business, entrepreneurship journey and advice they'd give to other women considering starting their own business.

The full interview by Roula Yiamcoumi can be found here



Kym Atkins, co-founder of The Volte



Name: Kym Atkins, co-founder

Business: The Volte

Established: 2017 in Perth

No. of employees: 10

No. of customers: 100,000 monthly users



#### Information Age: What is your business all about?

**Kym:** <u>The Volte</u> is an online peer-to-peer marketplace for borrowing and lending designer fashion items. The best way to think about us is the Airbnb of fashion.

#### IA: How did the idea for your business come about?

**Kym:** It came about a couple of years ago when one of my co-founders was going to lots of weddings. I looked at her wardrobe and wondered how could she monetise the clothes in there. She was often only wearing the dress once and felt like she had to buy a new dress for each event she was going to. On top of that, we felt that with fast fashion being the second largest polluter in the world, maybe we could get people back into designer fashion – back into the real thing – and consuming fashion sustainably, that would be a good thing as well.

#### IA: What problem does your business solve?

**Kym:** I guess it solves the problem of women having nothing to wear! One of the Volte's visions from the beginning has been that every woman in the world can have access to designer fashion and consume fashion sustainably.

#### IA: Who is your ideal customer?

**Kym:** To be honest, we've found that it's any female from 18 to 55. We have a really broad range because everyone has an event at some point that they need to go to. I think a lot of people don't necessarily want to purchase an evening gown or even just a new dress for a one-off event.

#### IA: What is the vision for your business?

**Kym:** We would like to definitely explore new markets. Our vision really is for every woman in the world to have access to designer fashion. We have all different price points, demographics, size range and we want to start people thinking about consuming sustainably. Let's get people back into the real thing. Let's support designers and let's try and move away from being disposable with our fashion.

#### IA: What would you say has been your biggest stuff-up up to date?

**Kym:** We delayed our development by six months attaching a courier service to the site. It was really tricky for the developers so we delayed six months, cost a lot of money and within two to four weeks of launching, we realised that the Australian public only wanted Australia Post! That was probably our most expensive and time-consuming mistake. We took the courier off straight away. It wasn't working.

#### IA: With the benefit of hindsight then, what would you have done differently?

**Kym:** The funny, interesting thing is that we did ask the customers but we asked the wrong question. We were asking, "Would you like it delivered to your house?" We didn't ask how you'd like it delivered. We liked the idea that it would come to your house. We just didn't realise that people didn't want couriers. People live in apartment blocks in Sydney and Melbourne and most people don't have a safe place at their house to leave a parcel. They want it to go the post office and be signed for. I think we asked them the wrong question when we asked it and our mentor, Adam Broadway, told us for nearly every week for those five or six months to not do this and maybe just stick to Australia Post but we insisted that it was the secret sauce [laughs].

#### IA: What's your advice to women looking to become female founders?

**Kym:** If you have a great idea I think it's worth just giving it a go. You never know where it might take you. At times it is relentless and challenging but it also gives you flexibility. If you are a mother -- and I'm a mother of four -- you can at least be flexible around the children but do not underestimate how hard it is. It's the most rewarding thing I've ever done.



**ACS Information Age** series profiled 12 women who have grabbed the entrepreneurial reins and ridden into the unpredictability of start-up life. These women share their business, entrepreneurship journey and advice they'd give to other women considering starting their own business.

The full interview by Roula Yiamcoumi can be found here





Name: Julia Khalyavko, co-founder

Business: Suelo Tech

Established: 2019 in Brisbane

No. of employees: 2

No. of customers: 0



#### Information Age: Tell me about your business.

**Julia:** Suelo Tech is a social enterprise start-up – we're developing technology for small scale ecological farmers to help them better compete with industrial agriculture.

#### IA: How did the idea for your business come about?

**Julia:** I'm not an idea person. I'm an executor and you need to give me an idea for me to become skilled in it. My friend from uni had this idea for an agricultural start-up about a year ago and approached me about it. My co-founder had a bit of the agricultural experience but I didn't know anything about the industry. It took five to six months to map the industry out, to understand its sectors, pains, gaps to work out what we could invent and for whom. We came to the conclusion that small-scale ecological growers are the most marginalised in the industry because they're not using any pesticides and herbicides. They're not damaging the soil by using different damaging farming practices. They don't play by the rules of the big game which is industrial agriculture.

#### IA: What problem does your business solve?

**Julia:** Combatting climate change. [laughs] Imagine changing the world! Industrial agriculture is defined by its heavy use of pesticides which degrades the soil and so the soil is unable to store carbon deep beneath the surface. Soil is the biggest carbon sink in the world after the ocean. The presence of carbon in the atmosphere is the biggest driver of climate change. Agriculture is not the worst industry contributing to climate change but it's one of the major ones. The grand idea is to change the industrial way that food is being produced by using ecologically sustainable farming practices. They're called regenerative agriculture practices. What they do is regenerate soils. What the technology does is collect data using IoT sensors. It takes data from the soil and combines it with the information about the macro and micro climate. It looks at temperatures, humidity, moisture, and UV radiation. It combines all those big sets of data, analyses it and tells that farmer what's going on the soil and how to improve it.

#### IA: Given it has been quite complex at times, have you ever wanted to throw the towel in?

**Julia:** Of course. I've lost count how many times! I keep going because I'm very dedicated to whatever I decide to be dedicated about. To be completely frank, I was never passionate about agriculture before we started it because I didn't understand what it was all about. Now that I understand how it's interconnected with social processes and how it impacts climate change big time, it makes total sense to me.

#### IA: What advice would you have to female founders who are on their entrepreneurial journey?

**Julia:** In what I've seen so far when it comes to start-ups is that the most efficient founders are ones who are trying to solve problems in a sphere they're familiar with. Coming into the agricultural sphere, as a total stranger, look how much time it took me to understand what it was all about! If it's in an area you're unfamiliar with, that's going to be much harder. I also work another job. I'm a commercial analyst at Commit Works which develops planning and scheduling management software for mining sites. I just calculated recently and I basically have two full-time jobs. I work almost 80 hours a week. I really need to find an investor who wants to pay me a salary while I'm developing Suelo Tech!

acs

**ACS Information Age** series profiled 12 women who have grabbed the entrepreneurial reins and ridden into the unpredictability of start-up life. These women share their business, entrepreneurship journey and advice they'd give to other women considering starting their own business.

The full interview by Roula Yiamcoumi can be found here



#### Vidya Nallamad, co-founder of NetHealth



Name: Vidya Nallamad, co-founder

Business: NetHealth

Established: 2013 in Brisbane

No. of employees: 4

No. of customers: 250



#### Information Age: Tell me about your business.

**Vidya Nallamad:** NetHealthData is a software platform from NetHealth. We are into managing people's chronic conditions with the help of their chosen healthcare professionals and remote health monitoring. Our primary aim is to avoid people being hospitalised and take back the control of their health.

#### IA: What problem does your business solve?

**Vidya:** In Australia there are more than 200,000 people who are admitted to hospital every year, primarily due to diabetes, a heart problem or obesity. These are potentially preventable hospitalisations. This is costing the Australian Government a huge amount and we want to avoid those hospitalisations through remote health monitoring and avoid health complications.

#### IA: How did the idea for your business come about?

**Vidya:** It's a personal story concerning my father. He is a diabetic and lives in India. He lost vision in his left eye in 2016. We didn't know the reason so he started using my platform, which was in its very early stages. His GP was able to monitor his blood sugar levels and saw the medication he had prescribed wasn't working. He changed his medication and fortunately my father got his eyesight back. That was my personal experience and that's where I saw there was potential for children like me – who are worried about their parents – to have them monitored and avoid complications with their health management. So, I basically began the platform to help my father.

#### IA: What is the vision for your business?

**Vidya:** To make a difference in people's health. That's my aim. Our roadmap, our vision is to help people have a good quality of life.

#### IA: Who is your ideal customer?

**Vidya:** There are two sectors that could really benefit from NetHealthData, which is where we are placing our primary focus. One is gestational diabetes for females who are in their 19th, 20th week of pregnancy. These women need to have their blood sugar monitored, as it can affect the health of her baby. It is a crucial time in the pregnancy time and our platform can monitor blood sugar levels easily. The other is people who work in corporates. They are at high risk of developing chronic conditions because of the stress involved in their jobs. These are the two areas we are focusing on.

#### IA: Have you ever felt like throwing the towel in?

**Vidya:** Many times! Previously, I had developed appointment booking software. When my last paying customer said, "I'm signing out," that's when I thought, "Okay, I'm giving up now." At the same time, my dad's episode happened. That's where I saw a light at the end of the tunnel and said, "Okay, this could be the platform that I could pivot from; from medical appointment booking software to remote health monitoring." That's where I had to regroup and come back up.

#### IA: With the benefit of hindsight, what do you think are some things you would have done differently?

**Vidya:** The main thing is I wouldn't have wasted so much time on market research or education. I wouldn't say it's a mistake, though, but it was a learning curve. I went a little slow and steady rather than doing a big bang. If I think back to when I started in 2013, if I had my roadmap clear then, maybe I would have started NetHealth Data much earlier, and started educating and marketing both the platform and people together.

#### IA: What advice do you have for women who are looking to be founders of their own business?

**Vidya:** What I've seen, and it's also my personal experience: Women tend to doubt ourselves a lot and we tend to put off what we want to do. My one single suggestion is, which comes from one of my mentors is this: "Trust your instincts, let people say whatever they want, stick to your own convictions and the world will be at your feet."