



YWCA Canberra Clubhouse Newsletter

A high-tech digital studio where Tuggeranong youth collaborate with industry mentors to design, create, and pursue their passions.



Towards two years: the first Clubhouse impact report

It's been 18 months since the YWCA Clubhouse opened in October 2014. Our membership has grown to over 140 primary school, high school and college-aged students and interest continues to grow. The future is bright, and the first Clubhouse impact report tells us why.

In the past six months, we have been excited to see our members engage with the Clubhouse's offerings with confidence and enthusiasm. Members have used Photoshop to design logos for new small businesses, used DSLR cameras and video equipment to start photography businesses and shoot promotional videos for local sports teams, and gone on field trips to National Science Week and Questacon (see page 3 for more). And that's not to mention the 3D printer, a perennial favourite, to say the least!

As YWCA Canberra Executive Director Frances Crimmins observed in the report, "The YWCA Computer Clubhouse is only just beginning, we look to the next 12 months to see further growth, change, and the continued

opportunity to make a difference in closing the digital divide. Our goal is to open a second Clubhouse in West Belconnen in Canberra, to address another geographic area of need, and to continue to extend the impact of the Clubhouse model across the ACT."

To read the full report, head to the YWCA Canberra website.

The Clubhouse Network's new look!

You might have noticed a new look and feel to this month's newsletter...

After over 20 years of delivering Computer Clubhouses across the world, the Global Clubhouse Network has reinvigorated the Clubhouse model with a new brand.

The new name, 'The Clubhouse' encompasses the broad range of science, technology, mathematics, engineering and arts related activities our members undertake. The new vision for the Clubhouse network is 'A global community for creativity and achievement'.

About the Clubhouse

Open to all young people in the Tuggeranong region between the ages of 10 and 18, the Clubhouse provides a creative and collaborative out-of-school learning environment.

Hours: Mon-Fri 3pm-6pm

W: ywca-computerclubhouse.org.au P: (02) 6294 4633 [f](https://www.facebook.com/YWCAClubhouse) YWCAClubhouse [@YWCA_CCH](https://twitter.com/YWCA_CCH)



Mentor, supporter and champion of the Clubhouse

In memory of Sharen Scott

(27 June 1965 - 1 April 2016)

It is with great sadness that we acknowledge the passing of Sharen Scott, one of the Clubhouse's inaugural mentors, an active YWCA Canberra member, and a great supporter of building pathways for young people into STEM.

Sharen joined us as a mentor for the Clubhouse in 2014, before we had even officially opened. Her enthusiasm for the program, for its potential impact on young people, and above all, her enthusiasm for the power of technology to transform lives, had a lasting impact on the Clubhouse, our members, and our team.

Sharen's contributions to the Clubhouse, both as a mentor and as a donor of much-needed equipment enabled us to contribute to the lives of many members, and was a key foundational support in establishing the Clubhouse. Her contributions will be remembered, and her presence at the Clubhouse sorely missed.

Our thoughts are with her family and loved ones during this difficult time.

Outreach, excursions and Rube Goldberg machines: the Clubhouse enters 2016

The YWCA Canberra Clubhouse has officially entered its second year! Supervisor Lach Howarth is assisting in the completion of new projects every week.

2016 is the official 'Year of Digital Inclusion', and the Clubhouse is busy with numerous exciting excursions and activities underway. To mark international Rube Goldberg week, Clubhouse members put together a Rube Goldberg machine over three days.

(In case you aren't aware, a Rube Goldberg machine is deliberately over-engineered to perform a simple task in a complicated fashion.)

"We started day one with some designs on paper," said Lach, our Clubhouse Coordinator.

"First I asked the members to design the ultimate Rube Goldberg machine if time and money were not a concern. We had some fantastic concepts put down on paper, including one that involved a wormhole and time travel.

"After the crazy, unrealistic ideas, we moved on to some more reasonable ones using the materials available in the Clubhouse and others we could source from YWCA Canberra's Lanyon Youth and Community Centre."

In the end, the machine took three days to construct! And the final goal? To make a tiny, almost inaudible "ding!" when a marble strikes a spanner. The teamwork and creativity of the members in creating the machine exemplifies the best qualities of the Clubhouse: empowering and enabling youth to create.

In 2016, the Clubhouse aims to increase its membership and continue to provide opportunities for our members to gain new skills, confidence and capacities in science, technology, engineering, arts and mathematics.

The Clubhouse enters the stratosphere

One of the activities enabled by the Clubhouse is the use of complex simulation programs, including Kerbal Space Program, which enabled Edmund (pictured right) to create an online tutorial teaching others how to construct a shuttle that can make it into Earth's orbit!

"Edmund is one of our regular Clubhouse members," said Clubhouse Coordinator Lach Howarth. "He's eleven years old, and attends regularly. Edmund loves Minecraft, Kerbal Space Program, origami, coding, Rube Goldberg machines and more!"

Lach sat down with Edmund to chat about what he likes about the YWCA Canberra Clubhouse and what he'd like to learn there in future.



Clubhouse members make helicopter cups and check out coins in the Questacon's Gallery of Australian Inventiveness

Why do you come to the Clubhouse?

To meet new friends and to improve my own coding skills.

What's your favourite thing to do at the Clubhouse?

Coding using Scratch and tutorials on origami.

What's the best thing you've created so far?

Probably my origami dragons and dinosaurs

What's something new you'd like to see the Clubhouse get?

Minecraft for computers because then we could build more stuff. Minecraft can also be used to create construction plans and create things you can't build in real life such as a plane or a house that builds itself.

Questacon: where it's the little things

This school holidays, we were excited to take a lucky group of seven Clubhouse members on an excursion to the centre during the summer holidays.

Questacon has over 200 interactive science and technology attractions, as well as shows designed to inspire and engage young people in science, technology, engineering and maths fields.

The Clubhouse excursion started with an hour of free time to wander through and explore, starting with a giant animatronic spider in the lobby, alongside moving sculptures and a robot that can repeat lines and actions from famous movies. Members, and one slightly nervous coordinator, started the day going down a 6m free fall slide. The group also tested their skills on an air-hockey table, facing a robotic arm.

After the first hour, the groups went to a science show which looked at Newton's laws of motion, in particular Newton's first law: "Every object in a state of uniform motion tends to remain in that state of motion unless an external force is applied to it."

This is also known as the law of inertia, or as the show put it, "Stuff don't do nothin' unless you do something to it". The show featured a variety of levers, pulleys, sleds,

wheels and helmets, as well as one of our members and the Coordinator Lach Howarth himself!

After the show, a couple of our members became particularly preoccupied by the microscope in the Gallery of Australian Inventiveness. They looked at skin, prawn eggs, money, hats, hair and coins, among other things. Another popular exhibit was concerned with creating and solving puzzles. One fun attraction was cup helicopters. There were scissors and paper cups available to create a helicopter-inspired form which could then be placed on top of an upwards pointing fan. (See above left.)

While the Clubhouse relies heavily on material donations that can be used in the after-school sessions, financial donations help facilitate excursions for our members to some of Canberra's exciting, educational attractions.

Leading by example: Erica Hediger

Emily Hollosy, a Corporate Relations and Communications volunteer with YWCA Canberra, has been interviewing inspiring women in STEM fields for the Clubhouse blog. Here she interviews Erica Hediger (pictured), a robot-making, workshop-running, creative entrepreneur, about the programs she runs and the path she took to get where she is now.

The Creative Element, Erica's business, is based out of the Canberra Innovation Network. "There are two halves to The Creative Element. There's a professional half, which is prototype and manufacturing. I help with the start-up of the idea and I make the networks and suggestions for the next stage.

"The other half is the educational side, which is where I run workshops and classes to up-skill members of the public - specifically women and people with disabilities or disadvantaged groups - to get them into jobs and fields they normally wouldn't be able to do. I teach them things like welding, milling, cutters [and using] industrial machinery.

"I don't have a background or an undergraduate degree in any of this stuff," she explains. "I was always interested in making things - my dad's a master builder and I grew up on work sites playing with tools and bits of wood - but I didn't think the tech I use now was accessible.

"It was only when I started really pulling things apart and doing research that I realised that it's actually really simple, not scary or intimidating ... it made me think this might be a bit of fun." Erica explains that developing those initial skills is actually quite easily accessible. "Even if you don't have a lot of money there is a phenomenal amount of stuff online for free - if you're really



interested, there's so many resources that are available to teach you and help you get started. For me, YouTube was perfect because I could find exactly the information I needed."

As a young woman in the STEM field, Erica says it works in her favour that people have low expectations. This attitude comes through in some of the workshops she runs with women, almost by accident, Erica says.

"I've noticed a lot of women can be really disparaging toward themselves. They think if they don't know absolutely everything about robotics then they can't build a robot. Yes, you can. I've got unwavering confidence that there's always a way to get to where you want to go."

In a workshop environment, Erica's advice is the same for everyone, although "girls need to hear it a little louder," she says. "Get out and do stuff. Teach yourself as you go. No one is stopping you from doing anything except you, yourself. Learn about the stuff you want to learn about and don't let anyone get in your way."

Clubhouse staff: Ciara Duggan

The Clubhouse wouldn't be possible without the work of our amazing youth engagement team, and a key part of that team is Ciara Duggan, a Senior Youth Worker with YWCA Canberra.

Can you tell us about your role?

My role at YWCA Canberra is as Senior Youth Engagement Officer. On a day-to-day basis I get to work with a dedicated and driven team and also with some of the most resilient and creative young people Tuggeranong has to offer!

What is your favourite thing about the YWCA Canberra Clubhouse?

The innovation and creativity of the young people.

What is the most out-there job you've ever had?

I don't think I have had an "out-there" job before. Although I have worked in many roles, including payroll, childcare and disability services before working in the youth sector.

If you had to choose a single thing about the Y that makes you proud to work here, what would it be?

The staff! Some of the most dedicated and inspirational people I have come across. It makes it easy coming to work, working with brilliant people.

When you're not at work, what's your relaxation activity of choice?

Anything outdoors. Camping, fishing, road trips! An supporting my beloved Manly Sea Eagles at any opportunity.

Who's your favourite inspirational woman?

My mum and sister are a tie! They are fantastic supportive and always there when I need them!

PARTNERSHIPS, CONTRIBUTIONS AND WORKPLACE GIVING: CORNERSTONES OF THE CLUBHOUSE



Unlocking the potential of our young people through technology

The role of technology in the empowerment of young people is important for their development into productive adults (Gee, 2013). Research demonstrates the importance of engaging, interest-promoting and well-resourced out-of-school environments for supporting the learning and development of young people. These 'third spaces' represent a critical element in the ecology of opportunities for youth (Gutierrez et al., 2003; 2009).

The Clubhouse addresses this need and supports young people to develop their skills and ability to contribute to society, and enhance their chances for success. In south Canberra, no similar venture exists, making it the only place where young Canberrans in the Tuggeranong region can go to use high-end hardware and software for free, enabling them to develop skills that have become practically essential to career progression in the 21st century.

The 2013 independent evaluation of The Intel Computer Clubhouse Network demonstrated that 85 per cent of Clubhouse Members now plan to attend postsecondary education, and 92 per cent of Clubhouse Members "definitely" or "probably" believing they will use skills acquired in the Clubhouse in their future careers. But the Clubhouse doesn't stock itself: every donation of knowledge, money, hardware and software helps.

The importance of Clubhouse Partners

The sustainability and success of the YWCA Computer Clubhouse is determined by the support of corporate and philanthropic partnerships. These partnerships may comprise software and hardware contributions, professional mentoring for Clubhouse Members, and financial contributions to cover operating costs. To see a list of the wonderful organisations that have supported our Clubhouse to date, visit the YWCA Canberra website.

To discuss the exciting ways in which your organisation can contribute to the YWCA Computer Clubhouse, contact Zoya Patel, Senior Manager, Corporate Relations and Communications, via Zoya.Patel@ywca-canberra.org.au or 02 6175 9916.



Help us establish a world-class Computer Clubhouse

We need your help to ensure our Clubhouse continues to thrive and provide industry standard technology and life-changing development opportunities for our members. Our critical area of need for funding is to maintain our operational capacity with the employment of a qualified, full-time Clubhouse coordinator. Ongoing donations are also critical to ensure the Clubhouse offers the best in hardware, software and experiences.

YWCA Canberra Computer Clubhouse Coordinator

YWCA Canberra employs a full-time Computer Clubhouse Coordinator to manage the program, and its member, mentor and community networks. This role is critical to the viability and ongoing success of the program.

- Funding required: \$75,000 per annum

What else can your donations achieve?

- \$300 will buy heaps of great craft supplies, like felt, LED lights, cardboard and paints, which are critical to fostering a 'maker' culture at the Clubhouse.
- \$1,000 will help us purchase new graphics cards for our members to use to enhance their video game designs and programming.
- \$5000 can send our Clubhouse Coordinator to the Global Annual Conference. This event brings together Clubhouse staff, executive directors, sponsors and collaborators from organisations across the world. It's an opportunity for our Coordinator to develop new ideas, skills and perspectives that they can take home and implement to better serve our Clubhouse members.
- \$2,880 will fund the employment of our Clubhouse Coordinator for another two weeks, enabling us to support our members with mentoring and engagement, perform outreach into the Tuggeranong community, and grow the Clubhouse community more broadly!

Work with us!

To find out how you or your business can contribute to the YWCA Canberra Clubhouse, contact Zoya Patel, Senior Manager, Corporate Relations and Communication, via Zoya.Patel@ywca-canberra.org.au or 02 6175 9916

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