I would like to acknowledge the Traditional Owners of the land on which we meet today, and pay my respects to their Elders past and present.

An innovative peoples...

I grew up in, Caloundra, “Place of Beech tree (Kalowen)”

Lands of the Undumbi people

In a few week’s time we’ll be in Darwin, Larrakia people

Both Saltwater people

Very different environments and contexts

Adapt—understanding the land, working with natural processes

Understanding of the impact of lunar cycle on tides for thousands of years

Ideas are finding favour in mainstream science—“biomimicry”, natural capitalism etc.

An inspiration…
Australia’s First Peoples have been innovating for more than 40,000 years. So what happens when digital technology is embraced by the world’s oldest living culture?

- Our approach builds on a recognition that Aboriginal and Torres Strait Islander people have been innovating for more than 40,000 years...
- Living successfully, sustainably and continuously in one of the toughest environments on the planet
- So what happens when such an innovative peoples embraces digital technology?
- We believe the answer is Indigenous Digital Excellence
A lot more detail on the “bigger picture” concept

We have a discussion paper, “The IDX Vision” which…

Outlines the guiding frameworks and models

Aim is to co-develop, with community, a national strategy—framework for our collective activities

About ownership, movement, other organisations aligning their work

We see libraries as playing a key role

If you have an Indigenous engagement component to your work, consider how an IDX can play a part

Talk to us…

Won’t work without community of effort
• We’re interested in Aboriginal and Torres Strait Islander people achieving positive, self-determined outcomes
• We believe that digital tools not only play a constructive role in achieving these
• But they are crucial in enabling participation in the social and economic activities that are essential to achieving wellbeing
• Access is obviously a key precursor to taking advantage of these technologies.
• But our research shows that, even when affordable access is available, Indigenous Australians are not benefiting from the digital economy to the same degree as the broader Australian population
• So there is also a need to promote and motivate participation
• This is an emphasis of what we mean when we talk about IDX
• Access is a precursor, therefore…
• We advocate for equitable and affordable access to devices and connectivity
• Primarily through our participation in the Broadband for the Bush Alliance
• But our focus—of the Strategy and Initiative—is what happens when affordable and equitable access is available
• We believe to really unlock the value of digital technologies, more than Participation is required
• So our work is focused on building not only participation, but striving for “Excellence”
One of the things that the paper outlines is a set of objectives for each of the 3Ps I noted earlier
- It also contains more detail on the AUDIO model
- Especially the types of outcomes we hope IDX will be applied towards achieving
- But… more about what we’re doing specifically…
The IDX Initiative is a 5 year partnership between the NCIE and the Telstra Foundation.

It is our largest partnerships, and has generated a lot of interest.

Playing an active role in shifting the dialogue from one of deficits and disadvantage.

To one of capability and contribution.

This is a core aim of all of the NCIE’s programs and activities.
• Reinforcing our perspective on “excellence”— roughly 42% of the general pop. use Facebook.
• And research that usage of social media by Aboriginal and Torres Strait Islander people is greater than that, by a significant margin…

According to a recent McNair Ingenuity survey, it’s roughly 60% of Indigenous Australians use Facebook compared to 42% of the general population.

And this also applies to smartphone usage with usage amongst Indigenous Australian populations also being higher.

• An example...
• Indigenous Remote Media Festival in the Northern Peninsula Area
• Each of these photographers was from a remote community—media professionals doing websites, radio, video...
• Capturing the moment for their own local communities
• Highlights how the use of digital technologies is occurring in communities across Australia, including remote communities
• And some of the promise of such technology
• So, we’re interested in translating this higher proportion of usage of technology by Aboriginal and Torres Strait Islander people…
MAKING DIGITAL TECHNOLOGY

• …from simply using, to making new technology…
DIGITAL MAKING

• ...to making new digital technology—apps, devices etc.—something we call “digital making”
• Investment in these sorts of activities is one of the 5 action points we’ve outlined in the vision paper
• But something the Initiative is finding an increasing focus on
• Based on further work with the community
• Finding engaging and fun ways to interface with technology
• Where the “learning” occurs almost as a side-effect of the primary activity
• Flow on effects of things like STEM education pathways
• Part of global movement towards digital making
• But limited empirical evidence to date (something we’re hoping to contribute to rectifying)
How might we **inspire, build and connect** the next generation of Indigenous digital makers?

- So, our mission—as an Initiative—is to Inspire, Build and Connect the next generation of Indigenous digital makers
- Contributing to the broader IDX movement that seeks positive wellbeing outcomes
- Our interest is in bringing together the “maker movement” and Indigenous cultural perspectives
- Indigenous models of learning, history of innovation, Aboriginal Science
- In the ways we teach, as well as the content itself
- We try to “bootstrap” using existing resources, rather than duplicating what already exists…
- …but this is just a starting point
- Strengthening participants’ connection to Culture *through* learning digital technologies, and
- Embedding digital technology *within* a Cultural framework
Our work is broadly organised across these four areas:

- Learning Experiences
- Digital Things
- Movement Building
- Storytelling

The first is the most relevant to today's discussion: Learning experiences.
• Start by looking at a cornerstone of our work—a core piece of “infrastructure” if you like—the IDX Hub
• Part of Redfern campus of NCIE
• This photo taken at the first event held at the Hub
• Sydney Sustainability Jam—part of Global Sustainability Jam—in Nov 2013
• We had ideas about how we would organise the space
• Organisers were supportive of our goal of co-designing the space
• No furniture dedicated to the Hub at that time
• With a “blank slate” we were able to see how participants utilised the space
• Our ideas were flipped on their head as a result of watching it used in practice
• Enabled us to turn it from this…
• To now being “open for business”…
• This is the Collaboration space
• Adaptable—from plenary or panel sessions to interactive workshops
• Ideally suited to more interactive sessions (rather than traditional “meeting rooms”)
• Technology enabled—wireless networking and projection
• Able to use mobile devices (tablets) to move around space while projecting
• This is the Convo space
• An “active” meeting space
• Pin-board and white-board walls
• Skype conferencing, large format monitor wirelessly enabled
• Reflective of new models of working—for the team and for others in community
• Just a note about the role it plays in a national program? (given it’s based in just one urban location)
• In addition to supporting the local community, it is a…
• Controlled environment to test and prototype ideas
• That we can then share to be replicated/evolved/improved/shared back etc.
• Plus also the staging point for remote teaching opportunities
People who can create the things

- Increasing the number of...
- Emphasis is on “planting the seed”—creating interest/excitement in exploration of digital technology
- Not (just) formal learning outcomes (skills)
- Looking for partners who share in this vision to co-design effective learning experiences that translate and can be adapted into a variety of contexts
- Again, this is where we see libraries playing a key role
In Sep 2014 we held our first “Coding skills for kids” workshop
Linked with the NCIE School Holiday and After School Programs
We adapted the resources: used the echidna and honey ant instead,
Connecting to the long tradition of storytelling and Aboriginal and Torres Strait Islander science
Now a weekly program with the Redfern community, and we’re looking to expand
Part of this expansion, we are talking to Code Club Australia about how we can work together
Another avenue we’re exploring: robotics

Community-led: Pathway Partner Liam Ridgeway has a vision to have an Indigenous team to compete in robotics competitions like the FIRST Robotics League (started in the USA, but also operating in Australia)—https://firstaustralia.org/

Established connection with Glebe primary school to engage Indigenous students there and in satellite schools

First prototype workshop held in Nov 2014

Mentors: Linking to local universities—STEM education pathway—+ mentors to support workshops

Testing the model and looking at feasibility of ongoing program—second workshop in June 2015 with a wider base of participants drawn from local schools
We also plan to explore whether 3D Printing is an option

First workshop also scheduled for June, collaborating with Pathway Partner Three Farm

Emphasis is on understanding (and promoting) meaningful application of technology rather than the tech itself.

[Pointing to 3D printer] what you can do here, is the draw for learning how do use this thing [pointing to laptop]

We are using our early experiments to understand what it is that young people can imagine (doing) with these technologies

Connections to:

- Art
- Low cost, distributed manufacturing
- Create parts for fixing things
- Medical components (casts, eye scanners)
- Agriculture, mining, caring for country

With a view to leverage/promote, to build interest in the future

deeper thinking behind the choice of technology

Future directions of technology, so we’re relevant in 5 years time, career pathways
Ventures that can sustain the things

- The second stream is supporting...
• Consistent with our focus on innovation, and digital making
• Supporting the creation and sustainability of new, Indigenous-led digital enterprises
• This is a longer-term goal
• Example…
  • Photo: Anne Hanning—artist, designer and entrepreneur
  • Working with Pathway Partner, TACSI (Suhit)
  • Aim: reducing incidence of youth suicide
  • Original workshops using canvas mats
  • Adapting to youth delivery using iPads
  • Increasing engagement, collecting critical data
• The Innovators’ Lab is shifting gears
• Looking to support participants into and through existing incubator programs
Indigenous entrepreneurship workshop
25–26 July (Redfern)
IDX financial support for 5 participants living outside the wider Sydney metropolitan region

• Up-coming opportunity...
• See http://idx.org.au/murud2015 for more
- Follow our journey—Legible Practice/IDX Backstage blog http://ncie-idx.tumblr.com
- Sign up to our email list http://idx.org.au
- Social media