LIFE IN THE NBN’S WORLD

So what exactly can the NBN do for ordinary Australians? David Braue gives a rundown.

Asks Rod Tucker what he’d like to do with the high speeds and ubiquitous connectivity offered by the national broadband network (NBN), and he’s full of ideas. Of course, that’s his job: as director of the Institute for a Broadband Enabled Society (IBES) think-tank at the University of Melbourne, Professor Tucker and his team of thinkers are eagerly working to substantiate the use cases for the country’s biggest infrastructure project.

He’s not alone: in recent months, a slew of initiatives have been announced to explore potential uses for the network. NSW’s Australian Centre for Broadband Innovation (ACBI), for example, is backed by NICTA and the CSIRO and is exploring e-health, education, government and infrastructure projects. The NSW government’s NBN Taskforce unites government and private-sector research institutions.

A live 100Mbps NBN testbed has been established in the new Parkbridge housing estate in western Sydney. And a $4m telehealth trial will explore ways of linking doctors and patients via video in the Armidale and Kiama early-release NBN sites.

From one side of the country to the other, small groups of interested private-sector and government bodies are coming together to explore the potential uses for the network – and to see whether the average Australian would pay for them. The one application that definitely meets those tests, Tucker says, is entertainment – one that the government has tried to steer away from because it is perceived as too frivolous to justify a $26 billion spend.

Scorned from the Opposition recently, Tony Abbott referred to the NBN as ‘Building the Entertainment Revolution’ in a veiled reference to Labor’s oft-maligned education programs. But there is great commercial potential in providing fast pipes that will allow nearly every Australian household to pay TV content – expanding the reach of Foxtel and rivals well past the 30% or so of households currently able to access cable services.

“There is no killer application for the NBN,” says Tucker. “The killer application is all the applications. Entertainment is a great part of our social infrastructure; we already spend a large amount of [government] money on the ABC, for example. But there has been a reluctance to talk about it. I don’t see anything unpleasant about the idea that the NBN will provide entertainment.”

Whether or not you agree, the NBN’s value as a pay-TV network is only one of many ways NBN access will change your life. Here are 10 reasons we agree with:

1. TELEHEALTH

You may not need it now, but you could some day – or know someone who will. Some health services already let nurses check in on patients in their homes using existing phone lines, performance is sketchy and functionality limited. Nurses and doctors will use the NBN to conduct natural video consults with remote patients, monitor life-sustaining medical equipment in patients’ homes, and run live therapy and exercise sessions with rural patients who will no longer have to travel hundreds of kilometres to capital-city specialists.

2. REMOTE LEARNING

Many schools have fibre connections, but sharing them among 1,000 or more users means glacial-speed internet that often leaves teachers struggling to access online resources – and then giving up. The NBN will speed overall school performance and let students participate in faraway classes using interactive whiteboarding and videoconferencing from their homes. This may sound a luxury in city areas,
but in rural areas — where small schools can’t offer many essential classes because they
don’t have enough students to justify a
teacher — virtual classes will link students
across large geographical distances and
make otherwise unavailable classes possible.

3. VIDEOCONFERENCING
Naysayers inevitably like to talk about
how well Skype offers video over the internet,
and for free. But quality and bandwidth
varies online, and those depending too
heavily on Skype are often disappointed.
On the NBN, increased bandwidth and
guaranteed quality of service will ensure a
better-quality result all round — whether
you’re using Skype or videoconferencing
as part of other services. This opens up
tremendous possibilities: communicate
with loved ones; learn a new language with
a native speaker; conduct corporate board
meetings without the cost and bother of
travelling to a central location.

4. GAMING
If you’re into online gaming, you already
know how bad ping times can affect your
performance. It may seem like a frivolous
application for the NBN, but around 1 million
Australian households are signed up to the
PlayStation Network alone. With gaming a
multi billion-dollar market, improved ping
times, speed and reliability will give your
gaming a new lease of life. Ditto in-game
voice and video chats, which the NBN will
handle without flinching.

5. SMART HOMES
They won’t be here overnight, but smart
meters — those much-discussed, expensive
boxes that will track your energy usage
in real time — will also be permanent links
to the outside world. Remote-controlled
dishwashers and off-peak washing machines
are too far-fetched to care about, but how
about logging into your home’s security
system to watch your dog while you’re
interstate, review video of the guy who just
made off with your jewellery, or just turn
off the lights and iron you left on in the
rush out the door? The NBN’s ubiquitous
connectivity will make these sorts of uses
commonplace and easy.

6. WORKING FROM HOME
It may be tricky if you’re a bricklayer by trade,
but people in more and more jobs are finding
that adequate broadband helps them take
their work home with them — and participate
in team meetings via videoconferencing as
if they were at the office. Whether you’re staying
home to look after a sick child who’s stayed
back from school, or just can’t be bothered
getting out of your PJs, the NBN will let you
be at work even when you can’t be at work.

7. MEDIA & ENTERTAINMENT
So we already know that IPTV will bring
services like Foxtel and FetchTV to all
Australians, but that’s not the end of the
entertainment-related bonanza the network
will deliver. Say goodbye to video stores:
on-demand movie services will let you
stream HD movies to your TV in real time.
Use better upload speeds to push content
to your smartphone in high quality. Hosted
music services will stream and play any song,
anywhere. Play massively multiplayer online
games hosted on remote servers. Share
videos with family and friends without having
to wait hours while they upload. Bandwidth
will, simply, no longer be an obstacle.

8. FASTER TWO-WAY INTERNET
The NBN, of course, will make your internet
services more reliable and, in most cases,
faster than what you are already using. This
not only improves your internet experience
significantly, but lets you bring more services
into your home at the same time. Equally
important are increased upload speeds:
there’s no point having fast download speeds
if the people at the other end can’t send you
data quickly. The NBN will raise the bar and
improve the online experience for everyone.

9. INTERACTIVE SHOPPING
Imagine standing in front of your computer,
with a Microsoft Kinect-like camera on
you and reading your movements to control
an on-screen avatar. Adjust your avatar
with your own real measurements, then
take it to your favourite online store and
try on different combinations of clothes
to your heart’s content. Online merchants
may have a long way to go still, but — as
Second Life showed so well — creating
virtual worlds, and shopping in them, is
more than possible when you have heaps
and heaps of bandwidth.

10. REACH OUT & TOUCH SOMEONE
The NBN’s low latency lets you interact
with someone far away like they’re in front
of you, whether you’re playing guitar with
a mate or watching your grandchildren open
the presents you sent them for their birthday.
Researchers are adding new dimensions
to these experiences by building ‘haptic’
systems that transmit touch and movement
over the NBN. Squeeze a haptic controller,
for example, and your physiotherapist
on the other end of the session will feel your
grip from far away.