

# BENTECH BULLETIN

Second Edition June 2013

*“New technologies – New Abilities”*



*“NEW TECHNOLOGIES—NEW ABILITIES”*

**Hi** to all our BenTech Friends, particularly the new ones, welcome aboard.

We have come a long way since our first edition of this newsletter, a journey that will be summarised in this edition. We have reworded the old adage to the following “ It is not only the journey that is important but also those people with whom you travel”. Our journey has been hectic, exciting, but most importantly, enjoyable and this is due to the people that are with us on this journey.

*“Man is still the most extraordinary computer of all” - John F. Kennedy*

## New Home

All going well we will have a home base at the Mosman Park Community Men’s Shed. Over the past few months we have been meeting with the committee from the MPCMS and have worked out a deal with them. We are leasing an office and sharing an electronics laboratory and their workshop facilities in their new premises. The recently opened building is sited on the South eastern corner of the Tom Perrott Reserve. Brett Pollock (Com. Chair), John Law (Com. member), Dave Bowman (Shed Boss) and others have worked hard on getting an equitable lease signed up that will be beneficial for both organisations.

MPCMS is building the facilities for us on the mezzanine floor of the building. We expect to be in and well on the way to setting up by early July.

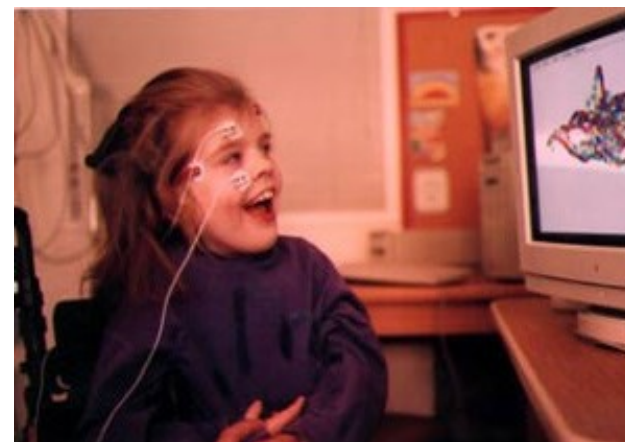
## Grant

Several weeks back we received the first tranche of

our grant money. This was timely, as we had run out of the funds that had come from our very generous donors and we were being funded, temporarily, from a loan from the generous My Place group.

## Interviews

As one of our early tasks we are interviewing 25 clients of My Place to get a clearer picture of the needs of those who have a disability. The inter-



**Eagle Eyes—changing lives**

views have been quite revealing, particularly in that there are some aspects that are very consistent (being able to get in and out of your own home) and others that are quite specific to an individual (notification of carer of a severe seizure event). The interviews are a “structured conversation” with the person, their MP coordinator and often the carer and some members of the family are also present. All parties have been outstandingly cooperative and enthusiastic about what we are doing.

We have almost finished the interviews and we have started to analyse the data which is giving us some early indications of the key areas on which we need to focus.

## The case

Richard Allen has been beaver away in his shed (garage!) to produce a specially crafted, travel case containing the model a room. The “room” has, at this stage, a sliding door, a hinged window, a blind, air conditioner and three lights. All of these will be mechanically operated and able to be controlled wirelessly.

This case has two purposes: firstly, to demonstrate the principles of home automation to others, but

*“The empires of the future are the empires of the mind.” -Winston Churchill*

more importantly secondly, it will allow us to trial the control systems and the input devices we are developing.

The case will be controlled by wireless and internet, which



THE ROOM IN A CASE– on the bench

means that you can be a metre away or on the other side of the world to be able to control it.

## We have a Budii

As part of our research (surfing the web for hours on end) we discovered that the local firm iiNet have developed and marketed a unit that may be useful for our project.

iiNet have called it the Budii.

The Budii is a base unit on which is mounted a cordless phone and tablet. The unit is a very impressive looking unit that would not look out of place in any modern house. The

unit plugs into the phone line utilising the line for both phone and internet connection. The unit can also function as a wireless router/modem.

What attracted us was that the developers of the unit have incorporated two XBee chips into the base station for future use. The XBee system is the one we have been looking at as a suitable communication protocol.

We had a meeting with the development group at iiNet and they were very interested in what we were doing and very generously donated a Budii unit to BenTech.

## Web sites worth looking at

### **Neuro Switch reads muscles**

<http://neuroswitch.net/>

### **Eagle Eyes**

<http://www.bc.edu/eagleeyes>

### **Need a Budii?**

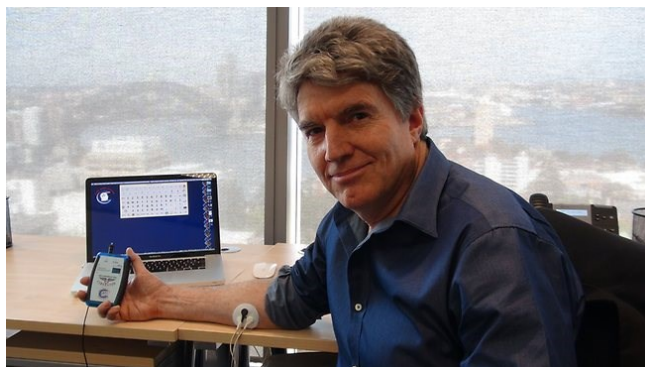
<http://www.iinet.net.au/budii/>

We will have a phone line in our new premises at the Mosman Park Community Men's Shed so we will install it and put it through its paces once we have settled in.

Many thanks to the iiNet group for their interest and generosity.

## Neuro Switch

Peter Ford was featured several months back on ABC Australian Story. Peter has developed a "switch" that is operated by very small movements in muscles. The result is that a person with very little motor skill can, by the use of small muscle movement, operate a device like a light or a computer mouse.



**Peter Ford with his Neuro Switch**

Peter has marketed this device and spends his time promoting and installing the unit in Australia and the US.

After the Australian Story broadcast we contacted Peter and sent him details of the Ben's House Project. Peter is very interested and said he is keen to meet us the next time he gets to Perth. We are in the process of setting up that meeting.

## Ken and Jane

Ken Eaton and Jane Chitumwa are both engineering students at Edith Cowan University's Joondalup campus. Ken is working for Tom Kendall at Mintrex (one of our supporters) as a design draftsman and is studying engineering part time. He is at present doing a mechatronics unit.

Jane is African born, and after completing her aviation degree with ECU, decided to continue studies in engineering. She is also doing the same mechatronics unit as Ken. The unit they are doing requires them to do a project together as a team.

After our talk to the Mintrex staff some months back Ken was keen to base his project on part of the Ben's House Project and subsequently teamed up with Jane.

*"One machine can do the work of fifty ordinary men. No machine can do the work of one extraordinary man."*  
-Elbert Hubbard

Ken and Jane have produced their first reports and peer presentation detailing their intentions for the project and are now researching and developing systems, at first, for our demonstration case and then they are keen to develop real life systems to improve the life of the disabled.

We look forward to working with Ken and Jane in the future. Their enthusiasm is heart warming .

## Donations

We are pleased to say that donations are continuing to come in and we are intending to use those donations for, wherever possible, specific projects so that donors are able to see clearly where their money is being used.

Thanks go to Richard's parents who have made a donation to the project



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