Slide 1

Usability – A recent gradate perspective

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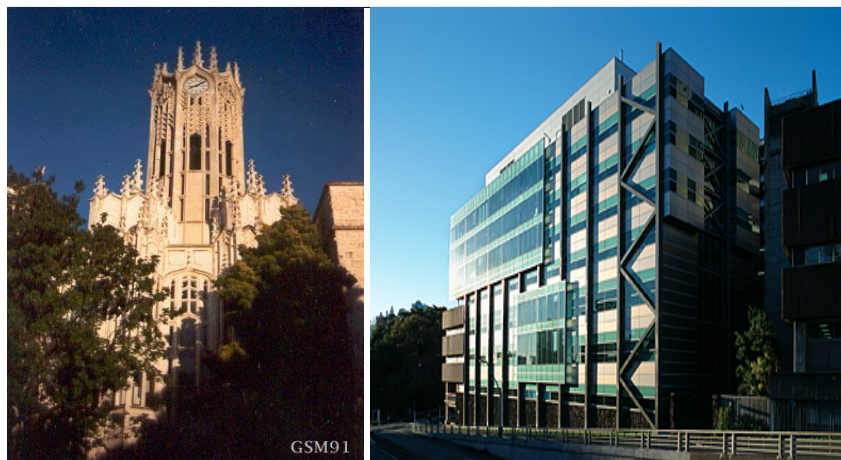**Slide 2**
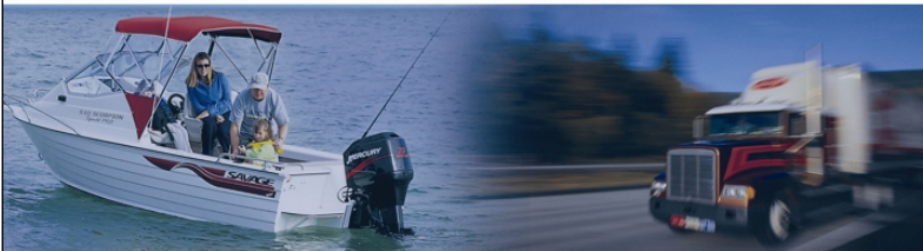
Agenda

- **My Background**
  - ➢ **curiosities and interests**
  - ➢ **getting a career**
- **Usability in the industry**
- **Some good usability resources.**

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Slide 3

Auckland University – CS 345

GSM91

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Slide 4

My background

Psychology and computer science

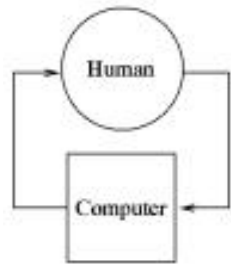Years 1-3 in Psychology, years 2-4 in Computer Science

 vs.

Divergent Interests, or one profession? Finding the path to take through study to career .

Year 3, ergonomics (Prof Brenda Lobb), exposed to usability for the first time.

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Usability – a great combination

Challenge

Complex task +
Complicated tools =
Limited productivity
Two domains
•Human-to-Computer (HCI)
•Human-to-Human (CSCW)

Clarity
Consistency
Metaphor
Navigation
Orientation

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Translating interests into (paying) career.

Looking for employment

• **Chasing up opportunities: separate the dead ends from the real ones.**

• **Enthusiasm for field, you need to paint your picture, and reinforce its value.**

• **'Networking' and keeping in touch.**

> **How it worked generally, how it worked at Navman.**

• **Persistence – Pick companies, stay in touch.**

• **Be prepared to wait and see, try to get a contact on the 'inside' that really wants you there.**

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What it means to work in usability

• **What's it really like?**

• **The practical stuff vs. ideal methods**
  – It's a mix, time pressures

• **Thinking and Doing**

• **The 'tools' we create for the organisation to use in decision making.**
  – Constant creative process, find new ways.

• **Usability in the process (where does it fit…)**
  – Software development and product lifecycle.

• **Usability, Ergonomics, Human Factors -rare roles…**
  – Needs to be embedded in everyone's workflow.

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Where am I in the organisation?

My title 'Graduate Usability Engineer, reporting to:

Senior Usability Engineer reporting to:

Core Technologies Manager reporting to:

Chief Technology Officer

I will also be working cross-functionally with the development team, the product strategy team, marketing and design, and others…

Benefits of being a graduate

crash course, learning opportunities.

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Hit the ground running

- **Push to get a tangible product – prototypes**

- **Compromises, time and money constraints**
  - **example, 'hard' processes like manufacture cannot wait.**

- **Make the best of it**
  - **Priorities, get some good done**

- **Staging Improvements – no nirvana design, iterative.**

- **Understand what customers need, represent it accurately in organisation**

- **Help engineers design with right needs in mind**
  - **Personas and placemats**

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Usability in Innovation

- **New products come out all the time, Some examples:**

  This is our

  older model

  The Pocket PC

Innovative industry, innovative processes, a little about VoC…

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VOC technique – Cordis Example

5 Steps to conducting VOC

Plan outcome-based interviews.

> **Deconstruct the process. Select users carefully to fit needs (Cordis selected cardiologists, nurses, and hospital administrative staff).**

Capture desired outcomes
- **Weed out vague statements, get outcomes from user solutions.**

Organise the outcomes
- **Remove duplicates, organise into logical groups.**

Rate outcomes for importance & satisfaction
- **Users to rate outcomes in terms of importance and current satisfaction levels.**

Use the outcomes to jump start innovation
- **Use the data to uncover the opportunity areas for product development.**

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VoC – Cordis Example

Abstract:

It's difficult to find a company these days that doesn't strive to be customer driven. Too bad, then, that most companies go about the process of listening to customers all wrong. What usually happens is this: Companies ask their customers what they want. Customers offer solutions in the form of products or services. Companies then deliver these tangibles, and customers just don't buy. The reason is simple--customers aren't expert or informed enough to come up with solutions. That's what your R&D team is for. Rather, customers should be asked only for outcomes--what they want a new product or service to do for them. The form the solutions take should be up to you. Using Cordis Corp. as an example, this article describes a series of effective steps for capturing, analyzing, and utilizing customer input. First come in-depth interviews, in which a moderator works with customers to deconstruct a process or activity to unearth "desired outcomes." Researchers then compile a comprehensive list of outcomes that participants rank in order of importance and degree to which they are satisfied by existing products. Finally, using a simple mathematical formula called the "opportunity calculation," researchers can learn the relative attractiveness of key opportunity areas. These data can be used to uncover opportunities for product development, to segment markets properly, and to conduct competitive analysis.

Web link:

http://harvardbusinessonline.hbsp.harvard.edu/b02/en/common/item_detail.jhtml?id=R0201H

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VoC Technique – Cordis Example cont…

- **The difference between asking people what they want, and watching them do something to figure it out what they need.**

- **Goal: Solve human needs, and create product differentiation –innovation.**

- **One way to do this – Opportunity Requirements Calculation**
  - ➤ **Importance + (Importance - Satisfaction) = Opportunity**

Results of this VOC analysis were that Cordis' market share grew from 1% in the US to 10%, Net Sales shot up by 30% and its new financial position allowed to grow into a wider range of markets.

Some More Innovation

The sport tool

Currently sponsoring

the Maui windsurfer race.

icn 510

Was originally a prototype and is now a fully fledged product on the market.

User Testing at Navman – another article

There are many things that Navman need to test and evaluate with users:

Here are the main ones…

- ➤ Industrial designs
- ➤ Human-Machine Interfaces
- ➤ Interaction models vs. user mental model of system
- ➤ Graphical User Interfaces
- ➤ Speech Interfaces

User testing is very useful in order to evaluate the product, and trained usability people are the people that would conduct the above testing appropriately.

There are those that believe that although testing is important and should be left to the professionals, there are a number of ways that usability can be conducted to some degree or another, by all the member within the development team. The link below is an article which should shed some light.

http://www.boxesandarrows.com/archives/investing_in_usability_testing_versus_training.php

Some good usability resources

Here are some good resources that are free.

Jakob Nielsen's site, www.useit.com

www.boxesandarrows.com

www.upassoc.org

http://www.jnd.org

It is a good idea to attend UPA meetings, they are held once a month, this months is about information architecture. If you are keen on continuing with usability, contact Beryl and she can give you the email address to rsvp.

Any questions…

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