

**LifeTec**  
towards easier living

## New Assistive Technology for Independence

Wellness, Reablement and Restorative Care



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### Reshaping Aged Care using Assistive Technologies

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### LifeTec

Is a social enterprise that exists to **enable** people and their communities to **achieve** their goals through the **correct application** of assistive technology and home design/modification.

We provide everyone with everyday **solutions** to everyday **activities**.

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## Our people

Are health professionals whom have an expertise in finding the right assistive technology solution.

To achieve good outcomes for consumers that are timely, efficient and affordable.

We are available onsite, offsite, telephone or online.



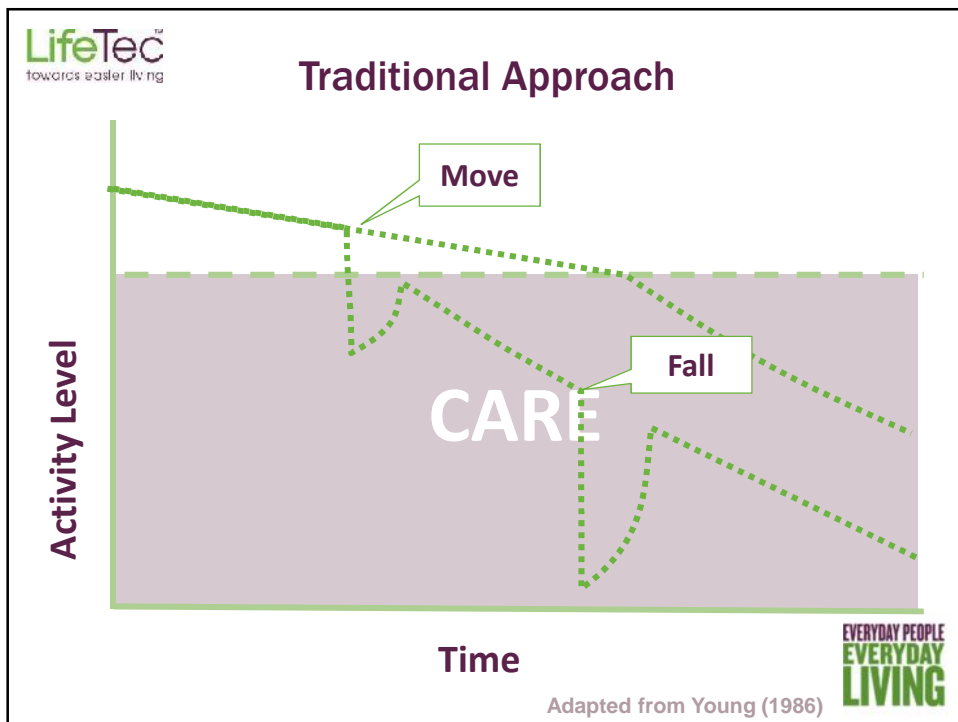
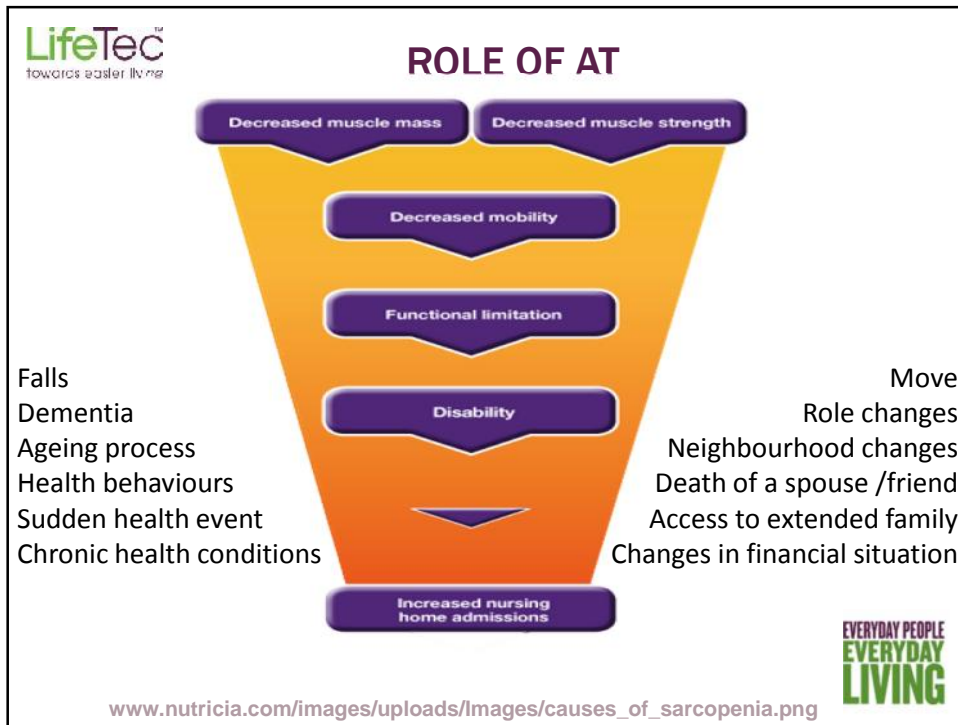
## Outline

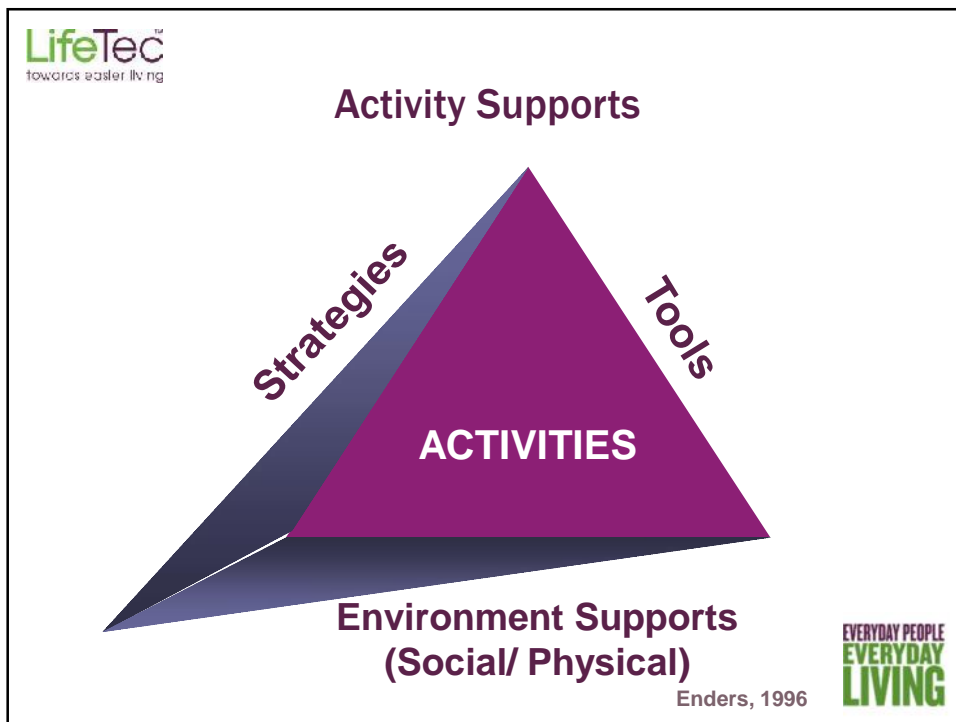
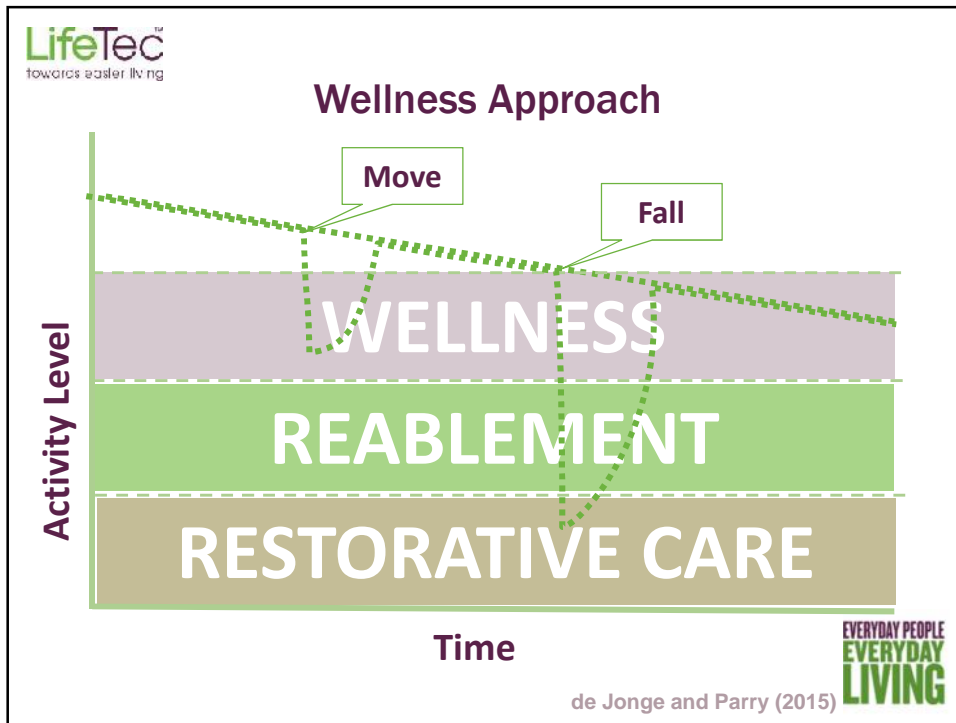
Role of AT in Wellness & Enablement

AT Possibilities

Implementation of AT







## AT, Home Design & Activity

- Rate of functional decline can be slowed and institutional and certain in-home personnel costs reduced through a systematic approach to providing Assistive Technology and Environmental Interventions.

Mann et al (1999)

## AT POSSIBILITIES



### What is Assistive Technology?

*“Assistive Technology (AT) is an umbrella term for any device or system that allows individuals to perform tasks they would otherwise be unable to do, or increases the ease and safety with which tasks can be performed”*

World Health Organisation, 2004



## AT Impact

	<b>Community</b>	Exercise	
	Shopping	Diet Variety	
	Appointments	Independence	
<b>Social</b>		Autonomy	
		Control	
	Community Group	Self esteem	
	Family Occasions	Meaning	
		Socialisation	
		Freedom	
		Social Contribution	

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### Basic AT Functions

- Vision
- Hearing
- Communication
- Computer Access
- Mobility, Transfers & Driving
- Personal Care & Dressing
- Kitchen & Household
- Safety & Health Management

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### New AT

- Seniors & Technology
- Dedicated vs Mainstream
- Functions
  - Home Control and Security
  - Safety Monitoring
  - Automated Appliances
  - Health Management
  - Activity Enablers

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Nielsen (2013) Australian Online Landscape Review

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## Home Control & Security



Door Locks | Door Bell | Camera

Plug | Light | Home Automation

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## Automated Appliances



Television | Cleaners/ Lawn Mowers

Air Conditioner | White Goods

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## Safety Monitoring



Emergency Call System



Fall Detector



Seizure Detector



Activity/Inactivity Monitoring



Environmental Monitoring



GPS Tracking

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Australian Standards AS4607 Personal Response Systems

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## Health Management



Medical Monitoring Devices/ Systems



Health and Wellness promotion



Medication Dispensers



Care Management Systems

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Therapeutic Goods Administration

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## Activity Enablers



Mobility/ Movement



Stress/ Pain Management



Navigation



Sense Augmentation



Schedules

- Brush teeth
- Wash Face
- Brush Hair
- Don Pajamas



Prompts

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## Home Design





- Universal Design
- Visual Access
- Contrast
- Colour Cues
- Lighting
- Grab Rails
- Non slip
- Intergrate Smart AT (remote monitoring, cut off devices)

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## Case Study



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## Current Equipment



## 2:00 am Bathroom Visit

- Jan gets out of bed
- Puts on pendant
- Movement sensor activates path lighting from bedroom to bathroom
- Bathroom used
- Makes way back to bed
- Movement sensor notices she has returned to bed and lights dim
- May forget pendant although if fall was to occur movement sensor would see after 30 min Jan did not return to bed and activate emergency call



## 7:00am Morning Routine

- Jan gets out of bed
- Puts on emergency call pendant
- 7.30 am reminder alarm with verbal message 'Medication & Breakfast'
- Forgets pendant although movement sensors will send alert if nil movement seen
- Opens wrong medication compartment device will alert Jan and her son



## 10:00am Choir Practice

- Jan leaves home gets into car
- Drives to Choir
- Returns home
- Whilst away her robotic vacuum completes the vacuuming
- Deviates from usual driving routine although GPS in vehicle alerts daughter and location can be tracked
- As the vacuum has scheduled cleaning this occurs during Jan's regular outing

## 2:00pm Shopping Outing

- Jan's online shopping order has her favourite items added
- Jan logs on with support of care staff and amends the shopping list
- Shopping is delivered the following day
- Jan and the care staff go on a Café visit with a small group of local clients



## 4:00pm Afternoon Activities

- Jan's mobile phone reminds her to play some brain games and practice phone skills
- Gets a message that there are 2 new emails
- Calls a friend in England via Skype

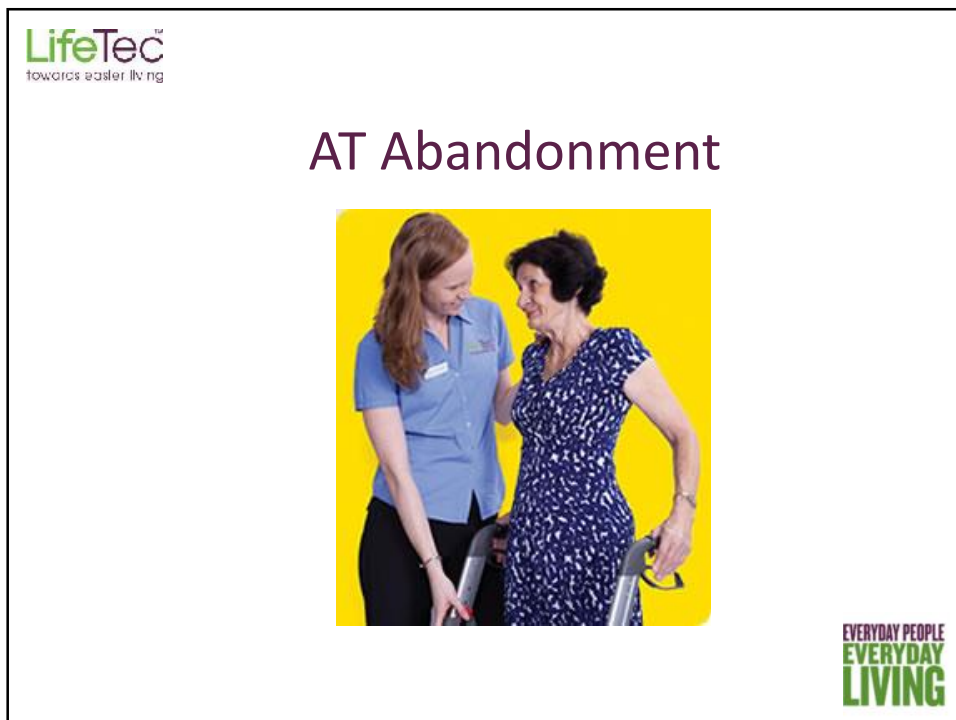
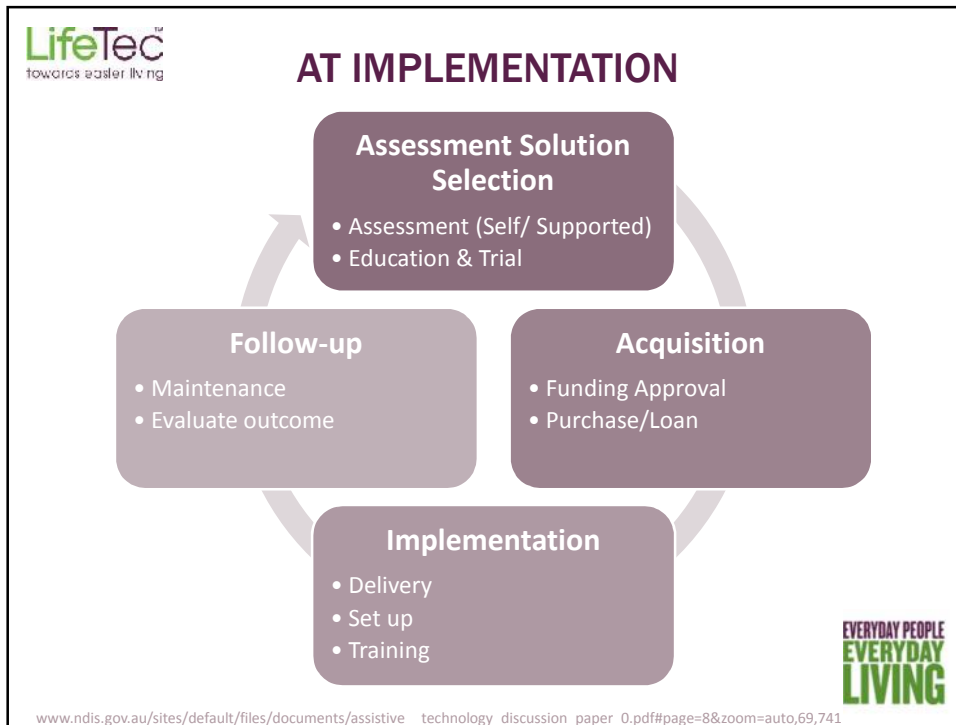



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## 7:00pm Self Care

- Verbal reminder states it is time to have a shower
- Jan goes into step less shower uses grab rail towel rail and high contrast rails
- Contrast seat available if required
- Long handled tap with colour prompt
- Open cabinetry for toiletries
- Temperature regulating valve to avoid burn
- Wheelchair accessible for future proofing
- If takes longer than 1 hour emergency call triggered







The screenshot shows the LifeTec website homepage. At the top left is the LifeTec logo with the tagline 'towards easier living'. Below the logo is a navigation menu with links for Home, About Us, Services, Education, Innovation, Research, and More and Events. A central banner features the 'EVERYDAY PEOPLE EVERYDAY LIVING' logo and images of people using assistive technology. Below the banner are four columns: SERVICES, EDUCATION, INNOVATION, and COMMUNITY, each with a brief description and a 'read more' button. At the bottom right of the screenshot is the 'EVERYDAY PEOPLE EVERYDAY LIVING' logo.

## Our Services

- Free Information Helpline
- Interactive Display Centres
- Product Database
- Professional Education and Training
- Allied Health Consultations
- Factsheets & Resources



The image shows a person from behind, wearing a headset and looking at a computer monitor. The monitor displays a video call with a woman. The person's hand is on a keyboard.

## Telehealth

Even if you're unable to visit us, we can still see you.

With the tablet, computer or mobile device you can still access our services.

Skype us @lifetec.brisbane





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[www.lifetec.org.au](http://www.lifetec.org.au)  
1300 885 886



## Brisbane

Level One, Reading Newmarket  
Above Coles

## Townsville

Shop G3A Domain Central  
Next to Specsavers

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