



# Konnekt Videophone

Face-to-Face Contact for the Socially Isolated Elderly or Disabled:  
Breakthrough Technologies and Case Study Insights

ATSA 2018



John Nakulski



# What you'll get from this talk

**WHY** is **face-to-face** critical for mental health?

**WHICH** technologies work. Which don't.

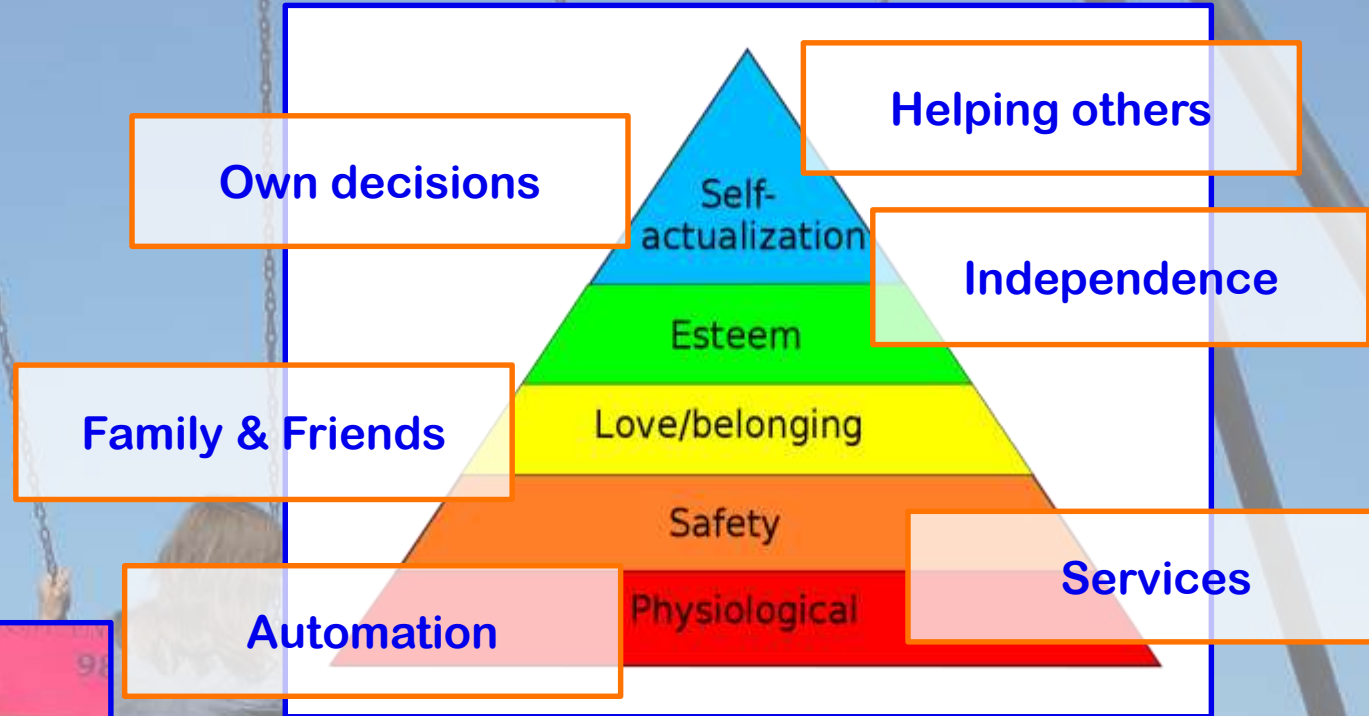
**WHEN** to recommend each.

**HOW** to make them work brilliantly.

**WHAT** to avoid, at all costs.



# Mental health is important



Getting the balance:  
Automation & services vs independence & family



# Social isolation is deadly

## Studies link social isolation and loneliness with:

1. Blood press. (14mm 4yrs)
2. Fragmented sleep (99%)
3. Dementia (2,173 3yrs)
4. Depression (14 studies)
5. Mortality (8yrs 22% 12%)

“As a health risk, social isolation is worse than cigarettes and physical inactivity” (308,849 7.5yrs, 50%)

- PLoS Medicine, 2010





## Face-to-face contact is key

**Studied 11,000 older adults**  
**Face-to-face 3 times/week**  
**Half depression incidence**  
**Derived gains endured 7 yrs**

### **Key take-aways:**

- **Family / friends (not workers or volunteers)**
- **Phone conversations & written contact: No effect**
- **Risk for those at home / in a facility / shared housing**



**Dr. Alan Teo,**  
**Leading mental health**  
**researcher, and**  
**OHSU Professor**  
**Dept. of Psychiatry &**  
**School of Public Health**

# Is video calling the answer?

**82% would try video communication**

*– Gerontology, 2011*



**Asked about video calling:**  
*“Regular face-to-face social interactions are likely a great way to help prevent depression.”*

*– Prof Teo, 2017*

# Video calling changes lives



**June has difficulty with her hands.  
Now, she SEES and talks to family and friends every day.**



**Graham's wife passed away.  
His hearing is impaired.  
He was unable to use a phone.  
Video calling changed his life!**

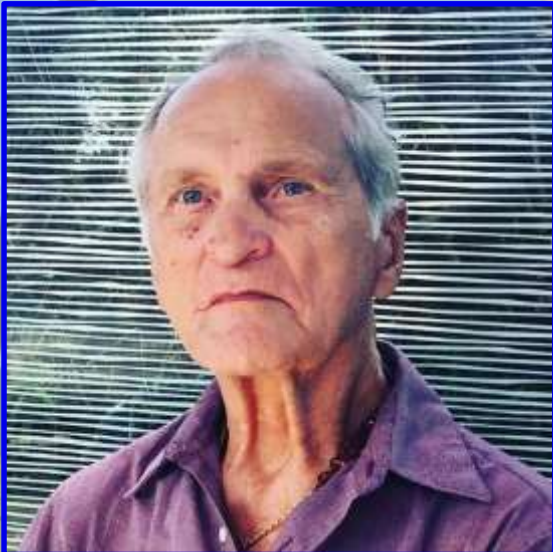
**Sons/daughters and carers are less worried**

# Visual signs of wellness, healthy habits



Eyes wide open? Getting enough sleep

...



Hair brushed? Self-care and self-esteem

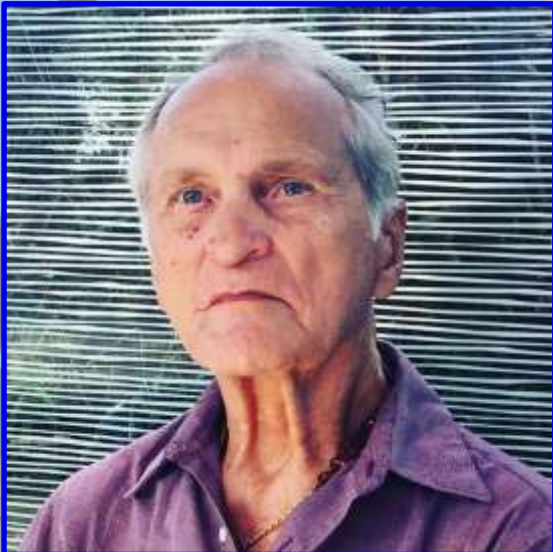
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# Visual signs of wellness, healthy habits

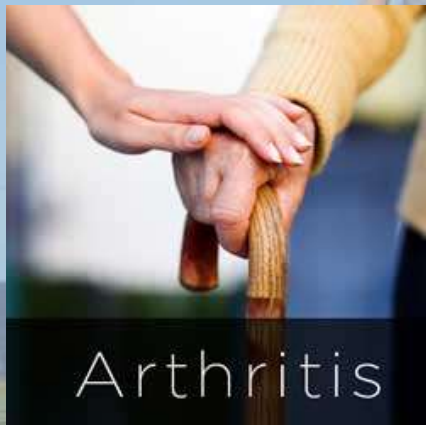


Eyes wide open? Getting enough sleep  
Animated expression, nodding? Brain health  
Flushed red cheeks? Over-heating is dangerous  
Facial hydration? Dehydration rapidly causes problems  
Shaky hands? Parkinson's check-up  
Trembling lips? Paranoia, anxiety  
Smiling mouth? Seems happy, not depressed  
Smiling eyes? REALLY HAPPY!



Hair brushed? Self-care and self-esteem  
Hair bouncy, not oily? Showering regularly  
Hair messy? Just got up? Regular sleep is vital  
Glasses on? Not misplaced or forgotten  
Clean face? Wash routine  
Make up / groomed? Self-esteem relates to mental health  
Fresh clothes? Good hygiene, healthy temperature  
Fingernails cut and clean? Healthy habits

# Video calling challenges



# Video calling app challenges

Over 50 menus  
and options

Tiny text

Unexpected  
pop-ups

Strangers and  
scammers

Emoticons

Tiny buttons

Updates change what  
you've learned

Forgettable icons

*Dedicated Videophones solve these problems*

# Device challenges



Too small for poor vision

Volume bumped or muted

Can't use a glove, bandage, prosthetic or wand / pointer

Awkward to hold

Connectors: Hard to plug in, break



Tiny, tinny speakers  
Can't hear it ring

*Dedicated Videophones solve these problems*

# Portability problems

Left off the charger



Taken into poor Wi-Fi areas



Misplaced



Dropped



Holding and carrying



# Support issues

## Unable to Check for Update

An error occurred while checking for a software update.

Cancel

Try Again

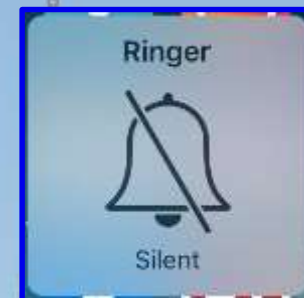
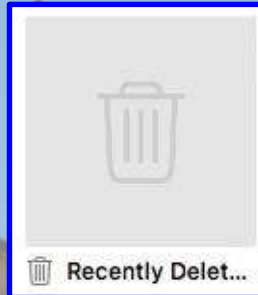


## FaceTime

Your carrier may charge for SMS messages used to activate FaceTime.

Cancel

OK



## Carrier Settings Update

New settings are available. Would you like to update them now?

Not Now

Update



## Multiple vendors

- Internet
- Tablet, Wi-Fi extender
- Video calling app

*Dedicated Videophone services solve these problems*

# Internet requirements for video calling

Uplink speed: min. 0.7 Mbps  
For lip-reading: 1.5 Mbps



Choice of ISP DOES matter  
during peak times

ADSL – What's Annex M?

Cable – SpeedBoost?

NBN – Is 12/1 enough?

Mobile – Surprisingly good

- Check coverage maps
- 5 GB \$20 pre-paid

Facility Wi-Fi – some are OK

Many use a captive portal

Some need login every 30  
days! (Password memory?)

# Video calling app selection

Choose for the **user**

Ease of use?

Android, Windows, iOS?

Calls landlines (backup)?

Firewall penetration?

Reliability, quality?

Copes with poor Internet?

Vendor support, longevity?

Skype

Google Duo

Wire

Line

Viber

WeChat

ooVoo

kik

Facetime

Facebook  
Messenger

WhatsApp

Hangouts

Tango

KaKao

spread

Nimbuzz



# Dedicated Videophones



# When to recommend

**Social isolation**



**Depression risk**

**Carer worry**



**Fall / illness risk**

**Struggling**



**Independence**

**Auto-answer**

# Selection Guide

**Mobile, laptop  
or tablet**

**Customized tablet**

**Dedicated  
videophone**

**Tech-savvy**

**Copes with pop-ups,  
settings, unwanted callers,  
operating system updates**

**Also wants apps, email,  
entertainment, texting,  
browsing, news, sport...**

**Somewhat tech-savvy**

**Good hearing, vision,  
dexterity**

**Copes with small text, small  
speaker and charging.  
Remembers icons, menus,  
and good Wi-Fi “zone”**

**Not tech-savvy**

**Dementia, learning disability,  
brain injury, poor hearing /  
sight, shaky hands, physical  
impairment or bed/chair-  
bound**

**No IT support handy**



**Flexible**

**Portable**

**Easy to Use**

# Mounting alternatives

Table / desk



Wall



Bed, chair



# Complementary products

Web-cam



Remote monitoring

**Intrusive**, one-way

Not a social tool

Facilities don't permit

Panic pendant



?? % don't wear them?

In emergency, carers want a **visual** check

Video call auto-answer



# Konnekt Videophone

See us on Table 20



[www.konnekt.com.au](http://www.konnekt.com.au)

**NDIS** REGISTERED  
PROVIDER aged care