

# **Sedentary work – The importance of adopting and maintaining optimal sitting posture. **Knowledge translation.****

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# Knowledge translation (KT)

- KT is defined as a **dynamic and interactive process** that includes **synthesis, dissemination, exchange** and ethically-sound **application** of knowledge of improve health, provide more effective health care system.  
(CIHR, 2005)

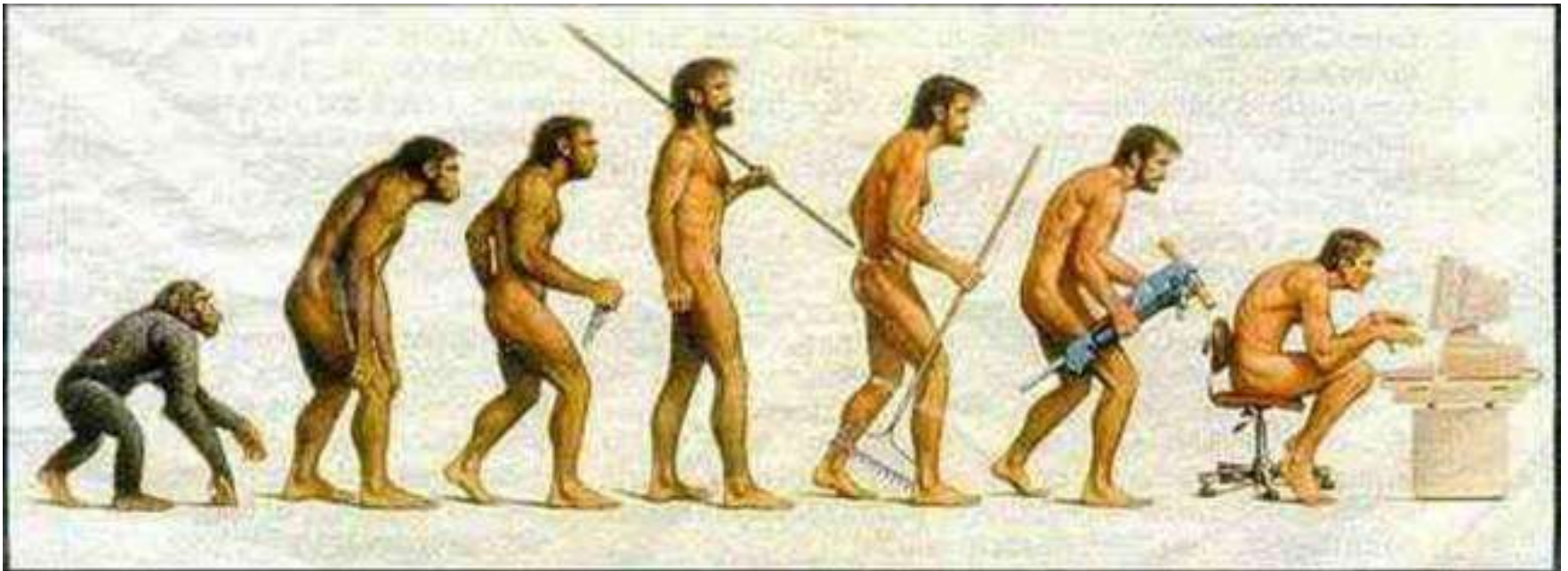
- This process takes place within **a complex system of interaction between researchers and knowledge users** which may vary in intensity, complexity and level of engagement depending on the nature of the research and the findings as well as the needs of the particular knowledge user.



# Synthesis

Pulling together knowledge.

*Ongoing human evolution*  
*Adjustment to our surrounding*  
*Adopting poor habits*



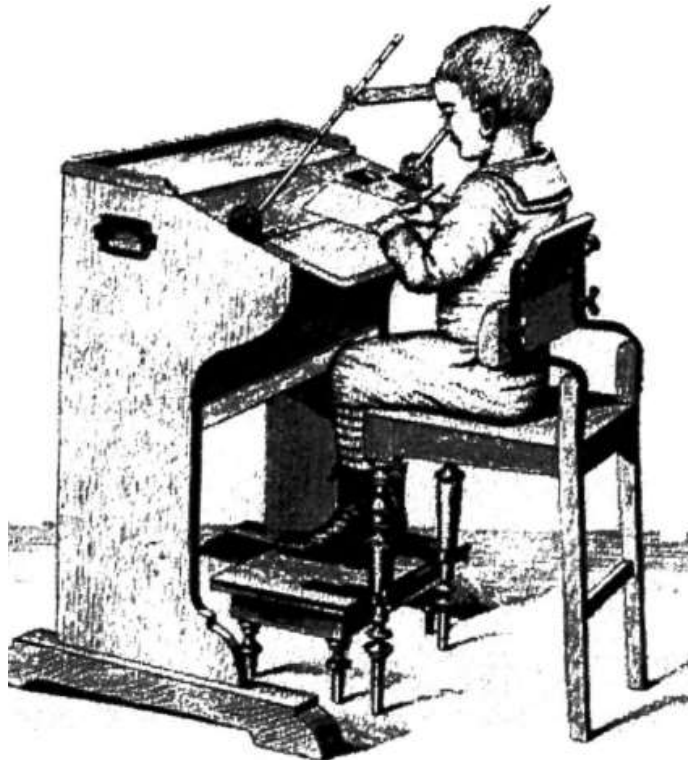
## Be aware!

- User characteristics (biomechanics, physiological domains and **cognitive state**)
- Task/activity characteristics
- Seat characteristics
- Environment



## Let's think...

- 1884 Franz Staffel –published papers on seated posture and seating design for children



- Source: Pynt & Higgs (2010, p.194)

# What has happened since that...

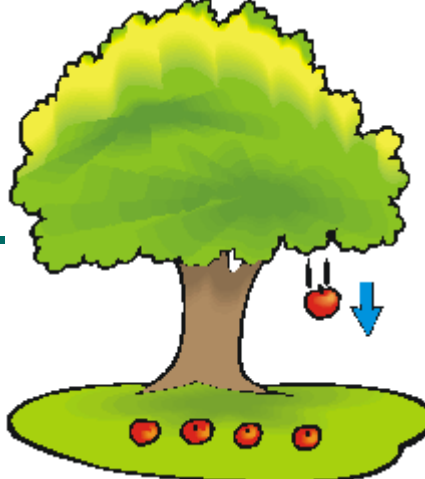
Upright position -  
'Sitting in balance'  
(Pheasant, 2003)

Maintaining neutral  
joint position –  
decreasing amount  
of stress on  
surrounding  
muscles, joints etc.





Bad



## Leaning forwards

No support for curve of lumbar spine

Excessive strain on lumbar discs

Don't punch air from off seat



TELL ME  
SOMETHING  
I DON'T  
KNOW!



- Source: [posturite.co.uk](http://posturite.co.uk)

# Good slouch



- Source: [posturite.co.uk](http://posturite.co.uk)



# Lack of consensus

- ? Lumbar region - Low back pain is one of the most prevalent musculoskeletal complaints
- ? Pelvis position/tilted seat
- ? Proprioception
- ? Prolonged sitting influences ability to focus
- ? Comfortable chair

(Wong et al., 2019, Lueder, R. 2019, Korakais et al., 2019, Bontrup et al., 2019, Triglav et al., 20019, De Costa et al., 2009, Bakker at al., 2009, Pheasant, 2003, Pynt et al., 2001, Harrison et al., 1999)

## Some agreement on...

- Optimal combination of sitting and break duration - **regular breaks with exercises**
- Working environment- **workplace culture**
- Client-centred approach – **sitting habits/behaviour**
- Future and more rigour research

## Chalmers & Glasziou Lancet 2009

- 85% of research is wasted, usually because it asks the wrong questions,... or does not change practice.



# Exchange

## Sharing of knowledge

- Caution with the interpretation of the results – generalisability, variables, terminology

# Dissemination

## Spread of knowledge

- The web
- Social media and networking
- The media



There is a need of trustworthy summaries of evidence

We need to support people to access knowledge

- **Application**  
Use of knowledge







# The answer is 17 years, what is the question: understanding time lags in translational research

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## DECLARATIONS

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## Summary

This study aimed to review the literature describing and quantifying time lags in the health research translation process. Papers were included in the review if they quantified time lags in the development of health interventions. The study identified 23 papers. Few were comparable as different studies use different measures, of different things, at different time points. We concluded that the current state of knowledge of time lags is of limited use to those responsible for R&D and knowledge transfer who

- It takes on average 17 years for research findings to be implemented into practice

# The Engage 2020 Action Catalogue

ActionCatalogue

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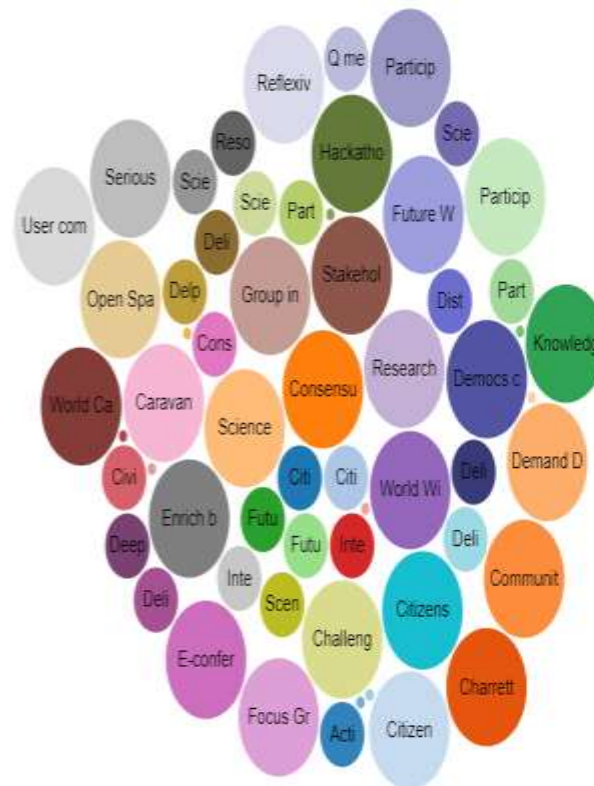
Objective of application of the method 

- ☐ Policy formulation
- ☐ Programme development
- ☐ Project definition
- ☒ Research activity
- ☐ Political empowerment of people

Level of stakeholder/public involvement, i.e. objective of public participation through the method's application 

- ☐ Dialogue
- ☐ Consulting
- ☒ Involving
- ☐ Collaborating

Importance



- *‘Educating the mind without educating the heart, is no education at all’*
  - Aristoteles

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Thank you for your attention  
Time for questions...

