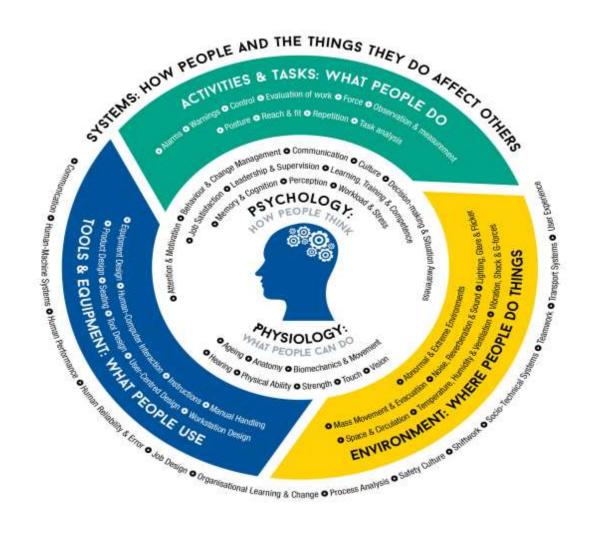
Healthcare Science - Whose responsibility is it

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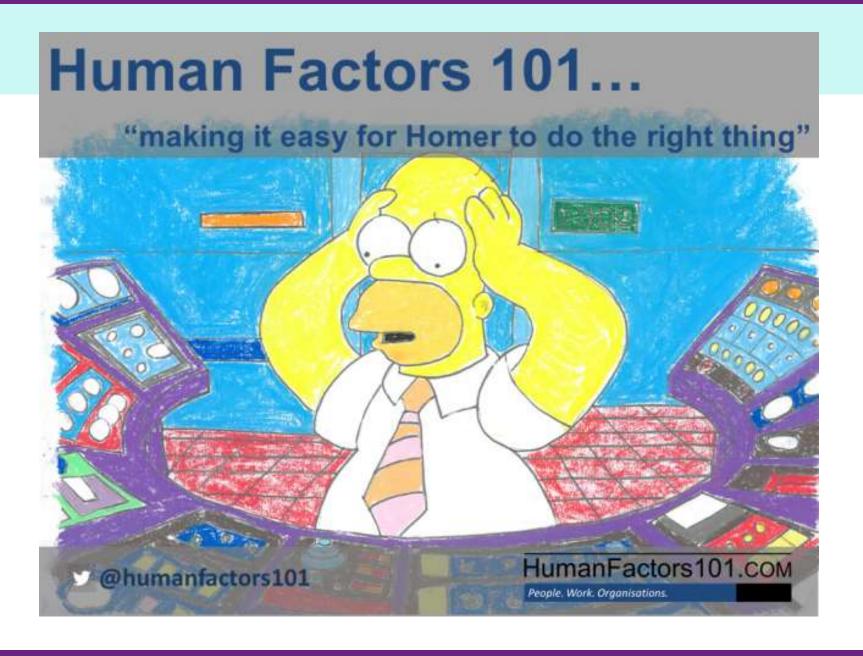


What is HFE?

Human Factors & Ergonomics principles & methods are used to investigate and resolve challenges by understanding what people can do individually, in teams and as part of larger systems and organisations

HFE solutions redesign 'systems' and 'things' to allow people to succeed

Matching design to human capability



Change your response to error?





Norman door (n.):

- A door where the design tells you to do the opposite of what you're actually supposed to do.
- A door that gives the wrong signal and needs a sign to correct it.

Human Error yes but...

- Type of Error?
- Caused by?
- What contributed to the error?

- Unintended Action
- Attentional slip or lapse
- System factors

Will blame and re-train prevent this happening again?

The four varieties of work (adapted from Shorrock)

Requires a 'just culture'



Evaluation of human work





Only by considering all four of these varieties of human work can we hope to understand what's going on

Performance variability

• As systems are so complex we cannot specify work precisely (end up with work as imagined)

Conditions vary, processes tightly coupled

 Performance variability is essential to make systems function (work as done)

• Performance variability (by humans) is what makes things usually go right.

Goal Conflicts

- 1. Efficiency Vs Thoroughness
- 2. Learning from error Vs don't cause harm

How do we resolve the second conflict?

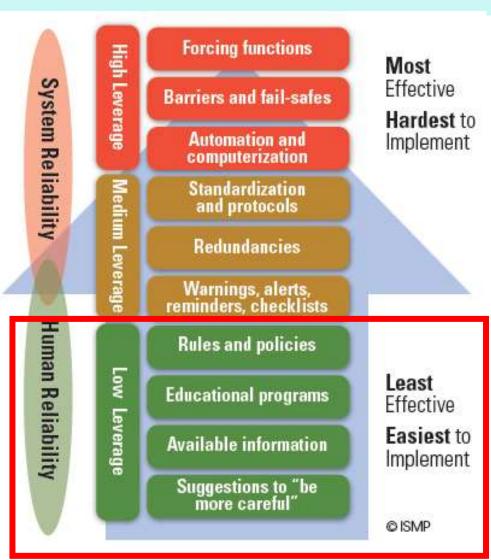
Improving the chance of success

Error is okay, it's the result of normal everyday work. The question for organisations is what level of unsatisfactory outcomes are we okay with?

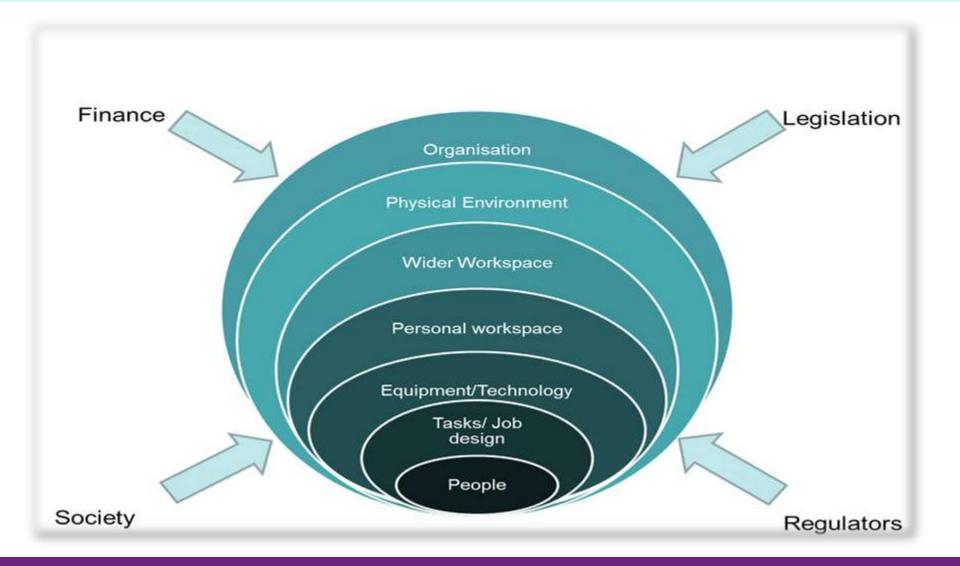
IS INEVITABLE.

We can never eliminate it

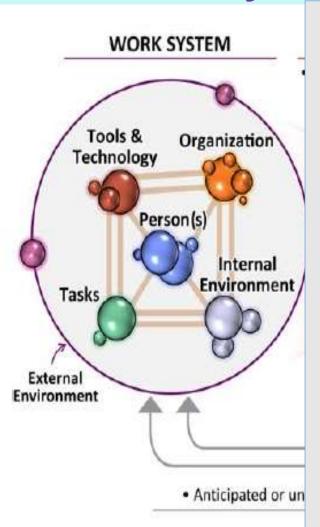
We do a lot of this, because its easier for us?



Understanding Human Capabilities...



To allow those capabilities to impact the Healthcare System



Human Factors and Ergonomics

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