Wearable Clinic: Safety Assurance

Ibrahim Habli
ibrahim.habli@york.ac.uk
(Safety) Benefits

• Digital health technologies **matter** for patient care
  – Core technology in healthcare

• AI, apps and wearables have a great potential for patient empowerment
  – Proactive care, self-monitoring, planning, real-time data, ...
Safety Basics

• Digital health failures also matter!
  – Can compromise, under certain conditions, patient safety and lead to harm

• Need to identify and analyse these unsafe conditions
  – Manage them in a Hazard Log

• Justify that what we did is sufficient
  – Captured in a Safety Case
Safety Challenges

**Advantages**

- Cheap(?)
- Commercially available
- Open source
- Reconfigurable
- Intelligent

**Safety Concerns**

- Cheap(?)
- Commercially available
- Open source
- Reconfigurable
- Intelligent

New assumptions about the role of patient and carers
No agreement on regulations and standards
An Example

- Importance of:
  - Safety by design
  - Through-life assurance
Open Source safety Cases

• MediPi: open-source telehealth solution
• MedMinder: self management of medications
• Peripheral Arterial Disease (PAD): self-management and self-test app
• ...

SMART