Towards Efficient User Experience in the Age of Industry 4.0

Veronika Domova
ABB SECRC, UX group, Västerås, Sweden
Agenda

1. Why the user matters
2. Industry 4.0 from the user prospective
3. Problems and solutions
4. Examples
Why the user matters?

Automation is **not black or white**
Industrial Internet of Things
Industrial processes and machinery are being monitored **remotely** by **less personnel**
Big Data

Large amounts of heterogeneous and spread data represented in tabular and numerical formats
How to make the industrial user thrive under the new circumstances?
A new set of tools is needed to support the industrial workers.
User-centered design
Technology scouting

- Wearable Interfaces
- Gesture Interfaces
- Ultra-Low-Power Processors
- Haptic/Tangible Interfaces
- Neural Interfaces
- Eye Gaze Interfaces
- Augmented/Virtual Reality
- Autonomous Aerial Vehicles
- 2D & 3D spaces
Domain-specific Big data visualizations
Industrial fleet visualization
Industrial control rooms
Then and now
Future Operator Interaction

Zones overview

**Observe**
- Glance

**Browse**
- Brows

**Operate**
- Read
  - Touch
  - Gesture
  - Ambient

Welcome John Smith

Observe

Browse

Operate
Tangible controls
Field work
Augmented reality as the source of information
Better safe than sorry: robot safety zone in augmented reality
Remote collaboration tools
Well designed user experience is one of the key factors for the success of the Industry 4.0