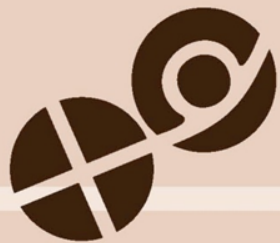


Remote Coaching Solution

(WERCware)

Sensor and System Integration

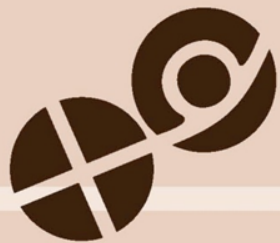
*Matthew Bohn, Joseph Coshun,
and Ryan Hahn*



Mission

WERCware seeks to provide a stress management and monitoring solution for people challenged with developmental disabilities. The objectives are to

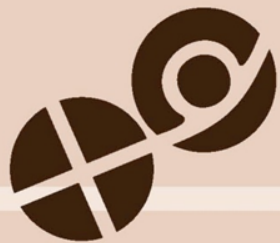
- Reduce cost for coaching services
- Provide greater independence
- Improve employability



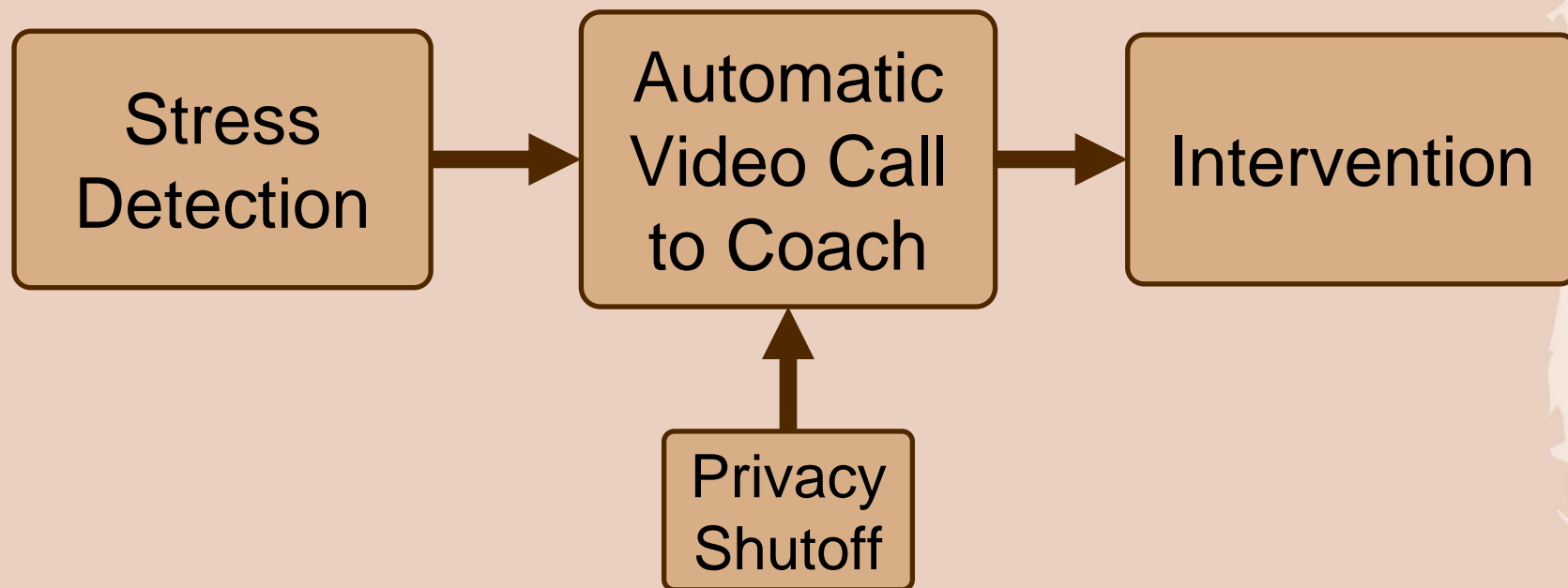
Nancy Patrick, Ph.D.

- Director of the Graduate Program in Education at Messiah College
- Professor of psychology
- Behavior specialist
- School psychologist
- Autism specialist
- Author of several books





WERCware Solution



Voice Audio



AI



EEG



GSR



HRV

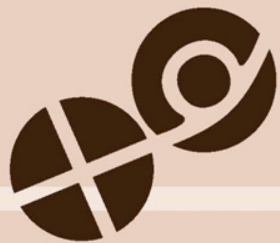


**Momentary Shutoff
Solution**



Life Coach





Stress Detection

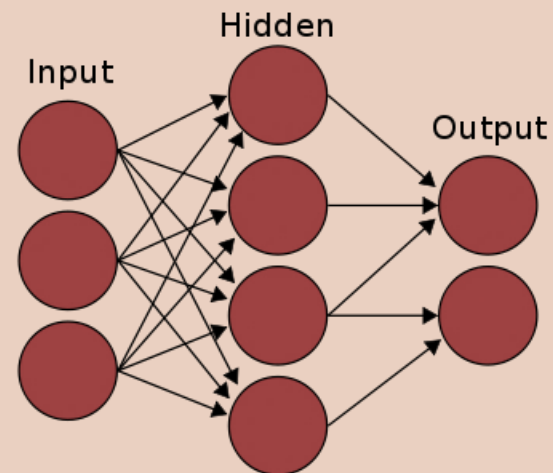
Voice Analysis

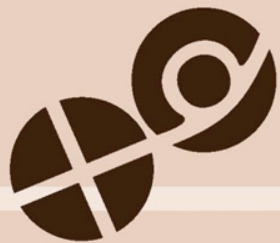
- Data Classification (ANN)
 - *Male vs. Female Detection (95%)*
 - *Stressed vs. Not-Stressed (85%)*
- Real-time detection
 - *Intel Edison Microprocessor*



Stress Detection

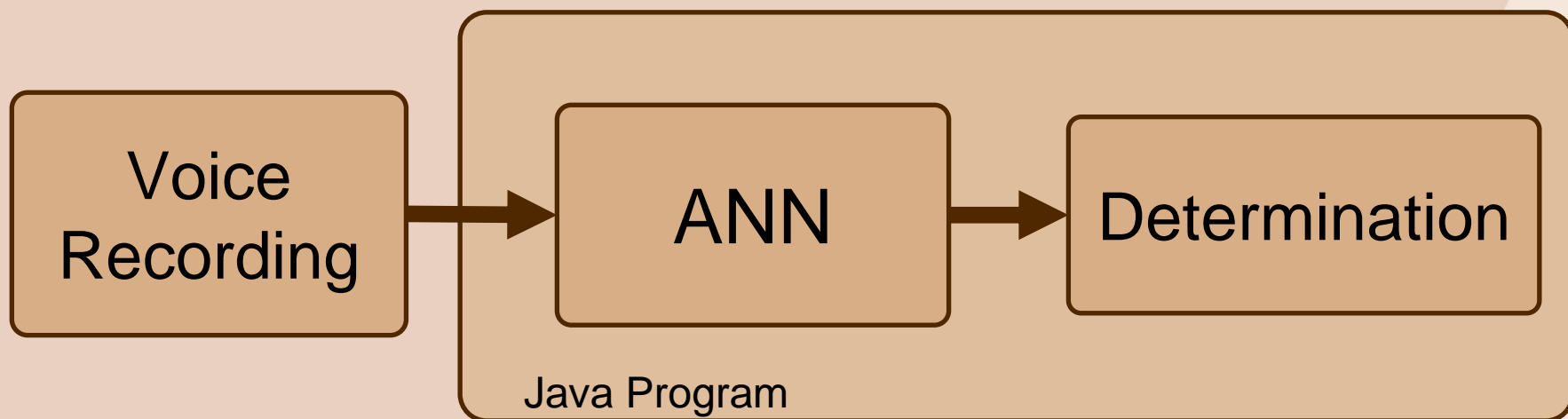
Non-Real-Time Processing





Stress Detection

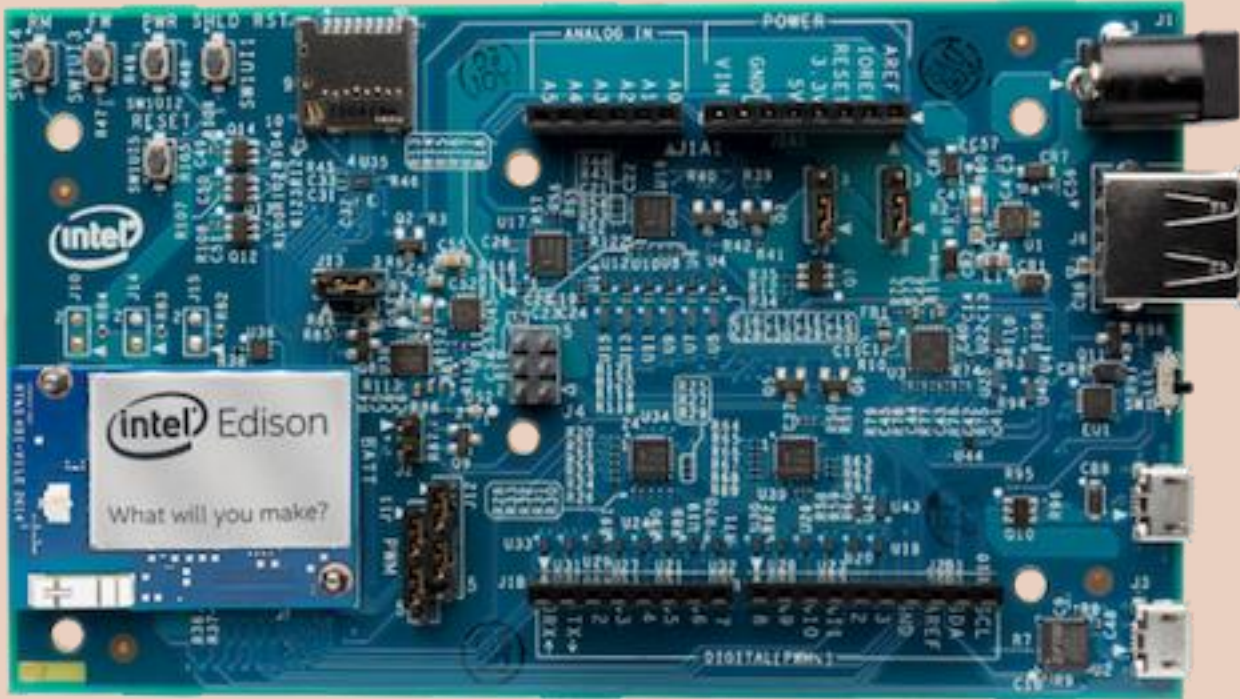
Non-Real-Time Processing





Stress Detection

Real-Time Processing



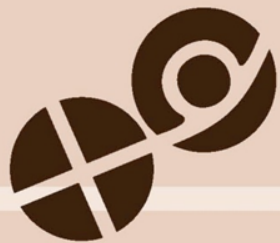


System Integration

App Development

- Audio Recording
- Video and Voice Calling (Twilio)
- Bluetooth Streaming





Acknowledgements

A special thanks to the following:

Client/Target Community Representative

Dr. Nancy Patrick

Professional Advisors

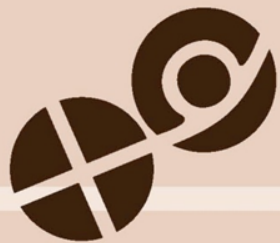
Curt Byers, Dr. Harold Underwood, Dr. Gene Chase

Professional Consultants

Dr. David Owen, Dr. Jennifer Thomson, Dr. Randall Fish

Additional Team Members

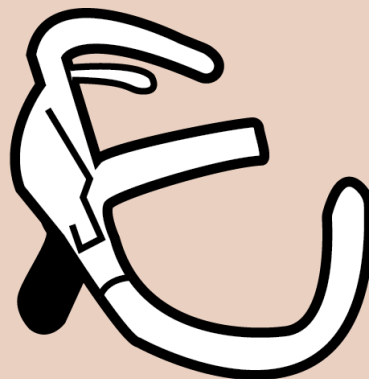
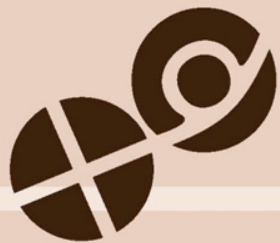
Josh Thomas, Derrick Peterson, Garrett Reichert



Questions



WERC



WERC