

Future Research - Themes

Understand

Human Focus

Trust & Acceptance

- Exception handling and loss of positive work experience
- Clear workflow transparency
- Trust in the output



Improve - Human-centered Learning/Optimization

Visualization of Output

- What input factor is impacting the outcome the most?
- Global vs local impact of decisions



Design of Real-time Interaction

- Virtual environment for experimentation
- Output vs input adjustment



Automation

Transition to Automation

- How to mimic human behavior?
- Building an initial model based from past, mainly manual data
- Transition to “Hands-off” planning



Machine Focus

“Optimality” of Decisions

- What is an optimal choice?
- Individual objectives of different decision-makers



Model Validation

- Validation of data input
- How to assess whether model is sufficiently realistic to be used?
- Know when the system is false

Model based on Human Behavior

- Change recommendation to increase acceptance/ adherence?
- Can we capturing the human touch in data?



Integration of Human Feedback

- How to add ad-hoc information that humans may still have?
- How can Human and AI both learn from each other?



Implicit Feedback

Explicit Feedback

Self-sustaining Algorithm

- Identifying new situations and automated anomaly detection
- Proactively identifying risks on supply planning



Input Quality

- (Un)reliable input (e.g. master data) impact the quality of output
- Output vs Input Adjustment

Self-trained Feedback

creates

creates

enables

enables

enables

essential for