

Tacit Knowledge Elicitation for Shop-floor Workers with an Intelligent Assistant

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Background: Knowledge Management in Manufacturing

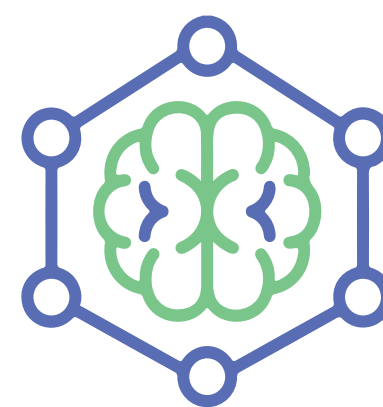
Sharing Knowledge is
Poorly Facilitated



Knowledge
Intensive



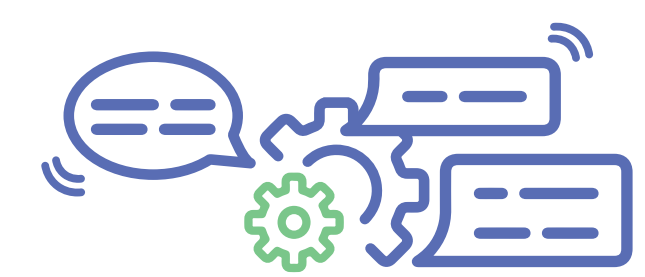
Tacit Knowledge is
Highly Valuable



Mobile Workforce



Tacit Knowledge is
Challenging to Share



Intelligent Assistant for Systematic Reflection

Systematic
reflections through
dialogue supported
by visualizations



Elicit (technical)
tacit knowledge

Promote
continuous learning



Process and
stores reflections in a
knowledge base for
reuse

User Interaction

Hi! I noticed that you
just finished a batch.

You performed 33 %
better than average.

Please review this
recap and describe
how you contributed
to the performance.



This graph shows the current
pressure setting of a detergent
production line. The large circles
indicate user interactions with
the machine and the small blue
dots represent the weights of
detergent cans being produced.
Gaps in the data indicate that
production stopped.

Overview

Tacit knowledge is highly valuable
in factory operations but is chal-
lenging to capture and share. This
knowledge is lost when workers
retire or change job.

Existing techniques for
tacit knowledge shar-
ing are resource inten-
sive and require human
analysts.

Systematic reflection is a
proven technique for eliciting
tacit knowledge as well as
promoting learning.

We are investigating if an Intelligent Assis-
tant can autonomously elicit and share
tacit knowledge on the shop floor by faci-
litating systematic reflection. Furthermore,
we are exploring how the visualization of
shop floor data can support this process.



Full-text

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