KNOWRON

Revolutionizing Report Processes with Al-Powered Solutions

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KNOWRON Overview

About: Knowron aims to augment the workflow of service technicians by providing a knowledge base that identifies recurring machine issues and knowledge gaps. It also aims at optimizing training and providing a seamless customer experience

Vision: To revolutionise and establish Al as an ubiquitous companion for deskless workers

Mission: To fundamentally change knowledge management for blue-collar workers in manufacturing industries, by providing a platform that smartly simplifies day-to-day operations

Current landscape of the manufacturing industry with global operations



Direct Competitors







GPT Studios

DrimCo

AnswersAnywhere

Indirect Competitors







Lengoo

Hypatos

German Autolabs

User Persona

Dietrich, 55 Service Technician, e.dis



Pain Points

- Does not speak English, only German
- Phone screen is too small for prolonged reading

Goals

- Finish the documentation quickly
- Follow all the steps from planned maintenance and document any unexpected steps
- Get the validation of his work quickly

Needs

 Simple UI to complete his tasks faster than his paperwork routine of the last 10 years. No complex tools that he struggles using

Stan, 37 Service Manager, EON



Pain Points

- He needs to have an overview of all processes and to find information of machines quickly, as he reviews and plans future maintenance operations
- He needs to review and operate reports of his team (10+ people) quickly, with little time available
- Specific and unexpected situations need to be documented too in the checklists

Goals

- Quickly find documentation and service reports of specific machines or dates
- Standardise the documentation process for all his team
- Collaborate efficiently with his international teammates, and to lower the language barrier

Needs

- Easy checklist creation process, flexible to his needs
- Central storage of information, easy to find Digital transformation of paperwork processes

User Journey (1/2)

Context	Service Technician							
Actions	Accessing Job Details	Diagnosis and Problem Solving	Decision Making and Solution	Documenting Report	Filling Feedback Forms			
Pain Points	1. Not all of the historical service data are available in all languages 2. Cannot efficiently search on a phone device	 No easy access to past services for diagnosis. Critical information is lost or not found at the right time 	1. Invest more time trying to analyse issues when it repeats	1. Documents the service report manually 2. Has to remember all the procedures and document any unexpected steps	Provides feedback about the process and operations for potential improvements but does not receive feedback			
Thoughts	"I have to search through many reports just to find a small piece of information, and this vast information is difficult to absorb on this screen"	"I did not find the information I needed after spending so much time, and now I am not so sure about my analysis"	"If the machines go through regular checks and services, then these issues would not occur"	"I have to write so many reports and I have only 15 minutes left! Hope I do not skip something crucial"	"It would be nice to obtain validation and recognition of some form"			
Feelings	Impatient, Frustrated	Anxious	Helpless	Overwhelmed	Underappreciated			

User Journey (2/2)

Context	Service Manager							
Actions	Communication with Technicians	Communication with Central System	Collaboration with International Teammates	Checklist and End of the day review				
Pain Points	1. Talks to more than 10 different service technicians a day and juggles between different formats 2. Cannot monitor progress of all technicians simultaneously	1. Cannot make real-time updates about machine or issue 2. Cannot update the details at once across all reports 3. Cannot find a way to broadcast information across all technicians	1. Gathers and prepares reports in prior for discussion with international teammates in order to establish context 2. Meetings take longer as the documents are available in specific languages only	1. Drafts new checklists everyday for technicians which is time consuming 2. Reviews multiple reports and cross verifies with given checklist and gets confused at times				
Thoughts	"I have to quickly review the documents and allocate sufficient time to read through different kinds of report" "Hope the technicians are able to complete their services efficiently"	"I need to set a reminder to update the details across all reports and machines before I forget, else the outcome could be catastrophic!"	"I have to spend some extra time on translating these documents for the international team"	"I always get confused with so many checklists and reports to review, hope I am not making a blunder"				
Feelings Stressed		Fear	Frustrated	Anxious				

Pain Point Prioritization

#	Pain Point	Frequency	Density	Intensity	Priority
1	No easy access to past services, reports and critical information for diagnosis.	High	Medium	High	High
2	Documents the service report manually	High	High	High	High
3	Has to remember all the procedures and document any unexpected steps	High	High	High	High
4	Talks to more than 10 different service technicians a day and juggles between different formats	High	High	High	High
5	Cannot make real-time updates about machine or issue	Medium	High	High	High
6	Cannot efficiently read and absorb information on a phone device	High	High	High	High
7	Drafts new checklists everyday for technicians which is time consuming	Medium	Medium	Medium	Medium
9	Provides feedback about the process and operations for potential improvements but does not receive feedback	Medium	Medium	High	Medium
10	Cannot monitor progress of all technicians simultaneously	Medium	Medium	Low	Medium
11	Gathers and prepares reports in prior for discussion with international teammates in order to establish context	Low	Medium	Medium	Medium
12	Reviews multiple reports and cross verifies with given checklist and gets confused at times	Medium	Medium	High	Medium
13	Cannot find a way to broadcast information across all technicians	Low	Medium	Low	Low
14	Meetings take longer as the documents are available in specific languages only	Low	Low	Medium	Low

Problem Statement: The Significant Pain Point

Augmenting workflow of service technicians

Service technicians and managers face challenges in conducting their day to day tasks efficiently without interruption caused by the lack of a tool to simplify their tasks

Value Proposition

Navigating Challenges and Streamlining operations for Technicians and Managers

An opportunity emerges to create an Al-powered solution tailored to the unique requirements of service technicians and managers. The Al solution aims to provide niche capabilities, including automated report generation and centralized information updates. By doing so, it strives to elevate the overall experience for service workers, mitigating pain points and fostering a more efficient and productive workflow

Smart Find effortlessly accessing past reports and vital information

Smart Find feature within the Knowron app offers a solution for service technicians who cannot easily find past services, reports and vital information for diagnosis and have limited access to information. The solution aims to assess problems and overcome potential risks using historical information.

Smart Find trained on past reports and documents using powerful contextual embeddings technique captures the context, semantic meaning and relationships between words and documents. It also leverages ML algorithms to perform user intent analysis to understand the user's purpose of the search

Users enter their search term and the intent of their search

- → It is converted to an embedding representation using the same document embedding model
- → The process ensures the search term is in the same vector space as the historical pool of reports.
- → The similarity scores are calculated between search term embeddings and document embedding index
- → The user receives a list of reports in the descending order starting from the report with highest similarity score to the report with lowest similarity score.

Feedback Loop: Users can provide a feedback about the relevance of the retrieved reports, which iteratively improves the search algorithm over time

Smart Fill streamlining report generation for maximum efficiency

Smart Fill within the Knowron app offers a solution for service technicians facing issues with filling reports manually that are time consuming and sometimes error-prone. Smart Fill assists technicians to auto generate reports based on a dynamic-prompt-response. The technique leverages Natural Language Understanding (NLU) and Auto-Completion Mechanism.

User initially begins by entering details:

- → The feature then generates and prompts dynamic responses based on the entered details; the users selects the most suitable responses
- → Once the user has entered sufficient prompts responses, the Auto-Completion Mechanism auto-completes and generates the report successfully conforming to a standard template

The AI feature also prompts technicians to record unexpected steps, enabling error-free reports and overall not spending more than 5 minutes on each report. It aids in automating monotonous tasks and improving operational efficiency

Connect Hub facilitating Manager-Technician collaboration

Connect Hub within the Knowron app serves as a centralized operation spot for service managers between the manager and the technicians.

- → The feature offers a central dashboard displaying key information, updates and tools
- The dashboard populates with real-time data about ongoing service tasks, technician availability and any critical notification
- → Manager can broadcast announcements or alerts to all technicians simultaneously, ensuring everyone is informed promptly
- → Connect Hub smartly identifies tasks based on technician skills and availability and sends a request to the manager; Once the manager approves, the technician is confirmed for the task

The feature is implemented with Al-powered algorithms for intelligent task assignment based on technician skills, availability, and historical performance.

MultiLingo for more seamless communication

MultiLingo allows users to read and download information and reports in any language currently from a list 15 languages, making the app more user friendly.

The translation feature is powered by enhanced language agnostic translation algorithm. The model is trained on multilingual datasets for learning language patterns and make in-depth comparisons as opposed to using word-to-word translation.

When the users initiate MultiLingo:

- → The feature translates the content, aiming to convey the meaning and nuances of the content accurately in the user's chosen language, lowering the error-rate
- → The translation process occurs in real-time, ensuring that users receive up-to-date information without delays
- → The feature promotes inclusivity making information accessible to diverse global users.

Competitive Differentiation using Kano Model

Features	GPT Studios		DrimCo		AnswersAnywhere		KNOWRON	
	Now	In 1 Year	Now	In 1 Year	Now	In 1 Year	Now	In 1 Year
Must haves 1	Tailor made Al solution		Document Modelling		Trained on Expert information		Generative Answers	Smart Fill, MultiLingo
Must haves 2					Works in offline mode		Smart Fill Using User Intent	Smart Find Connect Hub Automating Repetitive Tasks
Performance Benefits 1	Personalised Learning Experience		Semantic Text Search				Smart Find	Personalised Learning Experience
Delighters 1	Automating Repetitive Tasks		Automatic Risk Detection		Integrated with leading field service platforms		MultiLingo	Multi-modal Integration (Text-Image Integration), SORA
Delighters 2	Optimized workflow		User-in-the-loop mechanism				Connect Hub	Dynamic reranking

Success Metrics

North Star Metric



Usage Frequency

- Report relevancy
- ➤ UI intuition



Average session time

- Average time for report generation
- Average time to find report



Time to value (TTV)

- User onboarding journey
- ➤ UI intuition



Churn Rate



Average Revenue per User (ARPU)



App Load time

- > Tracks crashes
- Response time

Enhancing User Engagement Strategy

Pre-launch

- → Develop simple UI for Service technicians
- → Identify target audience and conduct effective Usability testing
- → Establish Community Forums for Service technicians and managers to interact.
 Learn and share tips with fellow workers

Post-launch

- → Track Success Metrics
- → Actively seek feedback through user feedback mechanism within the app
- → Release educative videos with FAQs to enhance user journey
- → Use Push notifications to ensure constant user engagement
- → Use analytics tools to gain marketing insights

GTM Strategy

Pre-Launch

Defining and Planning

Define objectives and key stakeholders Articulate key requirements of the feature in the Product Requirements Document (PRD)

Feature Development

Feature is developed by the Engineering and the Design team

Positioning and Messaging

Establish a compelling messaging calling attention to the value proposition

Beta Testing and Feedback

Perform Beta testing with a select set of users to gather feedback, implement changes and iterate

Launch

Promotion

Develop marketing assets to promote about the offering through blog posts, newsletters, and in-app notifications to build anticipation for existing users

User training

Provide educational resources, vidoes, FAQs to ensure smooth onboarding

Soft Launch & Activation

Conduct a soft launch with limited set features on a subset of users Encourage and monitor feedback

Post-Launch

Promotion and Complete Launch

Gradually expand rollout of all features to broader user segments, monitoring key success metrics Establish robust tech infrastructure to handle high load seamlessly

Measure, Improve & Iterate

Frequently gather and analyze user feedback. Identify shortcomings and areas for improvement. Implement quick feedback and rollout regular updates and enhancements based on user feedback

User Engagement

Encourage user engagement through feedback, and constantly roll out new features to keep users active on the app

Team Dynamics

Effective communication with teams and key stakeholders, and alignment towards common goals is best practiced with a structured methodology such as OKR (Objectives and Key Results) framework. The core team consists of UI/UX Designers, Engineers/Developers, Product Managers, Sales and Marketing

Objectives

The objectives for the team are defined, emphasizing on the outcomes to be achieved

> Enhance efficiency in report generation and optimize the workflow for blue-collar workers

Key Results

The objectives are reduced to quantifiable key results

Reduce report generation time by 25%

Alignment

The team member's individual goals and tasks are aligned with the defined objectives and key results, ensuring a cohesive team effort

Regular Check-ins

Daily Standups and check-ins help understand individual progress, discuss and overcome any blockers

Iterative Process

OKRs are defined periodically and are adjusted and revised to ensure constant alignment with company goals

Timeline

	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct
	Ideate							
	Market Research							
Plan	Problem Identification							
Fiaii	Opportunity Identification	Value Proposition						
		Specifiy MVP Features						
		Create MVP Prototype						
Test			Perform Usability Testing 1 to validate or invalidate Hypothesis	Testing Complete				
			User feedback analysis		Usability Testing 2			
		Prototype building Alpha						
Develop			Development Phase 1					
Develop					Development Phase 2			
						V2 Development Phase		e
Launch					Smart Fill Beta		Smart Fill V1	
					Smart Find Beta		Smart Find V1	

Market Challenges

Manufacturing Industry Al Technology **Cybersecurity Concerns Intense Global Competition** Make workflow and operations for workers Active measures to protect sensitive data more efficient by enabling user level access in the app Addressing High costs of Al Infrastructure such as **Technological Integration** Challenges Integrate with hardware and offer **Compute and Storage** customization Market expansion, user base expansion → Elevate the capabilities of smart manufacturing Users are more inclined to use an app that goes an extra mile to protect their Expand app features to be accessible data across the globe firstly by overcoming Increasing Expanding market and user base would language barrier App Usage increase app usage and revenue → Offer customized features relevant to the manufacturing and operation

Thankyou!

