

UN TRADE and DEVELOPMENT

Webinar on artificial intelligence deployment for consumer protection enforcement authorities

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Overcoming Challenges in Building AI-Based Knowledge Platform

Presentation by:

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Overcoming Challenges in Building AI-Based Knowledge Platform

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Setting the Scene

- 10-minute presentation on a three-year project:
Implementing **AI-Based Knowledge Platform to Facilitate Consumer Complaint Management and Increase Work Efficiency**
- Led by Digital Strategy Team, KCA
- Please direct any question to yna@kca.go.kr or international@kca.go.kr

Today's presentation

- Introduction
 - Background
 - Brief Introduction of AI-Based Knowledge Platform
- Challenges and efforts to tackle the obstacles
- Going forward

Intro- duction

What drives our institution to implement digital technology to our work process and what have we come up with?

Increased demand for digitalization:

External factor

- Government policy directed towards the establishment of electronic, digital government
 - *Korea e-Government Master Plan (2016), Digital Platform Government Implementation Plan (2023)*
 - E.g. Transitioning administrative systems, introducing electronic signatures and mobile IDs, data sharing across government, public data disclosure, etc.
- The shift in consumer complaint reception channels from phone calls to online interfaces

Increased demand for digitalization:

Internal factor

- Lack of custom information that can be provided to consumers who have simple inquiries or seek general information
- Time-consuming information collection and identity verification process
- Discrepancies between each agent's access to case data and knowledge required to handle complaints
- Increased demand for administrative automation

AI-Based Knowledge Platform

- Full name:
AI-Based Knowledge Platform to Facilitate Consumer Complaint Management and Increase Work Efficiency
- The **Platform** connotes the entire system, including database, models and tools, designed to accelerate the speed and increase efficiency of consumer administration at KCA

AI-Based Knowledge Platform

PHASE I (2022)

- Introduction of online chat counseling service
- Establishment of the foundation for knowledge collection
- Integration of ODR system

PHASE II (2023)

- Development of Chatbot system
- Establishment of Knowledge DB
- ODR system upgrade

PHASE III (2024)

- Establishment of Integrated knowledge management system
- Framework for task automation
- Refined standard responses for the Chatbot

AI-Based Knowledge Platform: PHASE III(2024)

- ① Establishment of integrated knowledge management system
- ② Framework for task automation and intelligent search engine
 - Knowledge Vine II: Intelligent data search engine
 - AI-based drafting system: Generates the first draft of dispute settlement decisions
 - Work Guide Bot: automates simple, repetitive tasks, provides work guide, increases access to intranet menus
- ③ Consumer Counselling Team created 7,000 standard responses for the Chatbot

Knowledge Vine II

지식넙을 시즌2

← → ↻ 주의 요함 | kv2.kca.go.kr:8080/kv2?tokenId=U3hDODhEaDBrRDN4Mkw2NWY0NTZ4YlhMWdDd0Td1Qm9VchYyVYVWwMWFDU0JqR0xSd3M5Vmd3PT0=

한국소비자원



시즌2
지식넙쿨

UNCTAD 관련 자료를 찾아줘

Please find information related to UNCTAD

Work Genie

Knowledge Vine II

지식영원 시론2

← → ↺ 주의 요함 | kv2.kca.go.kr:8080/search3

지식영원 시론2

UNCTAD 관련 자료를 찾아줘

AI Doc Help

AI 검색결과

답변

UNCTAD에 대한 정보를 찾으시면, 다음과 같은 내용을 확인할 수 있습니다.

- UNCTAD는 유엔 무역 및 개발 기구의 약자로, 1964년 설립된 국제기구입니다.
- UNCTAD의 주요 목표는 세계무역체제의 안정적이고 공정한 발전을 지원하고, 소득과 경제성장의 균형을 맞추고, 소외된 국가와 지역의 경제 발전에 기여하는 것입니다.

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UNCTAD는 국제 무역 및 개발에 관한 다양한 활동을 수행하고 있습니다. 이 기구는 세계무역체제의 안정적이고 공정한 발전을 지원하기 위해 노력하고 있으며, 소득과 경제성장의 균형을 맞추고, 소외된 국가와 지역의 경제발전에 기여하는 것을 목표로 하고 있습니다.

참조

- [국회 정무위(박재호 의원) 요구자료] 윤석열정부 국정과제 추진 내역 / 기획조정실(사회적가치팀)
- OECD 소비자정책위원회 및 제품안전작업반 합동회의 2일차(회의3일차) 결과보고

AI는 실수를 할 수 있습니다. 중요한 정보를 확인하세요.

닫기

관련 자료를 더 알아볼까요?

[1] [국회 정무위(박재호 의원) 요구자료] 윤석열정부 국정과제 추진 내역 / 기획조정실(사회적가치팀)

서류(자료)제출 요구목록

[2] OECD 소비자정책위원회 및 제품안전작업반 합동회의 2일차(회의3일차) 결과보고

- (음저배: 국제기구) ASEAN, COMESA, UNCTAD, UNEP, WB, WTO

[3] [국회(정무위원회) 요구자료] 정부(공공기관) 참여 국제회의 현황 / 대외홍보실(대외협력팀)

○○급

회의내용 관련 간단 설명...

전자결재

게시글

내부규정방

지식영원

법령

분쟁해결기준

로우데스크

판례

수령받전자결재 / 인자경영팀

2024 제8차 UNCTAD IGE 정례회의 참석 관련 휴일 근무 신청

제목 2024 제8차 UNCTAD IGE 정례회의 참석 관련 휴일 근무 신청 「2024 제8차 UNCTAD IGE 정례회의 참석을 위한 해외출장 계획(안)」(사업예산팀-391, 2024.06.14.)와 관련하여 불임과 같이 휴일 근무를 신청하오니 협조해 주시기, 휴일 근무 승인 신청서(PC-OFF 적용제외의 신청서) 1부 2. 2024 제8차 UNCTAD IGE 정례회의 참석을 위한 해외출장 계획(내부 결재 문서) 1부.

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인기검색어

1 소비자 기본법

2 복불규정

3 소비자기본법 제35조

4 민법 제11조

5 민법 제242조

6 특별휴가

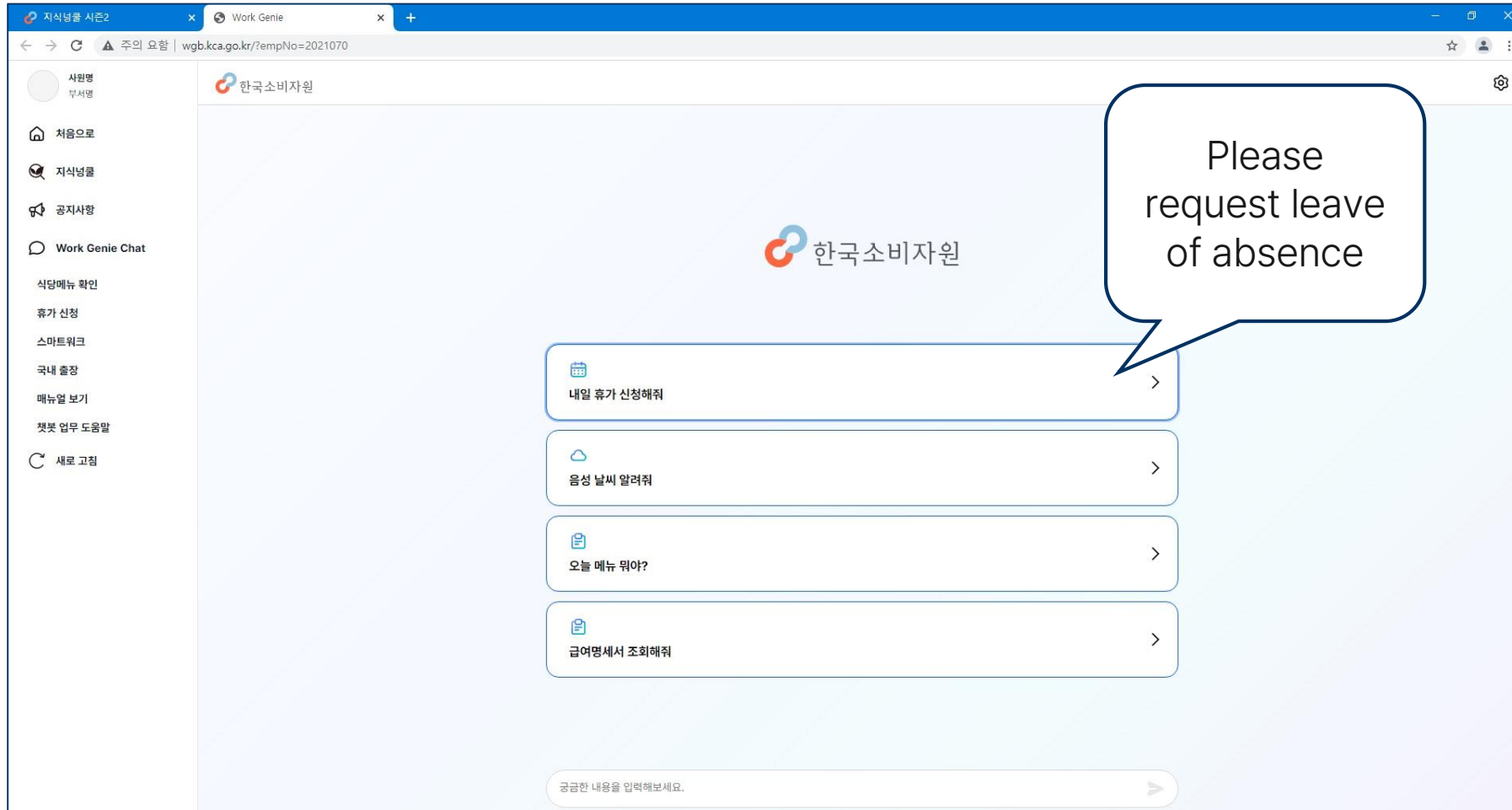
7 재택 매뉴얼

8 피해구제신청 절차

9 소비자기본법

10 소비자기본법 제10조

Work Guide Bot

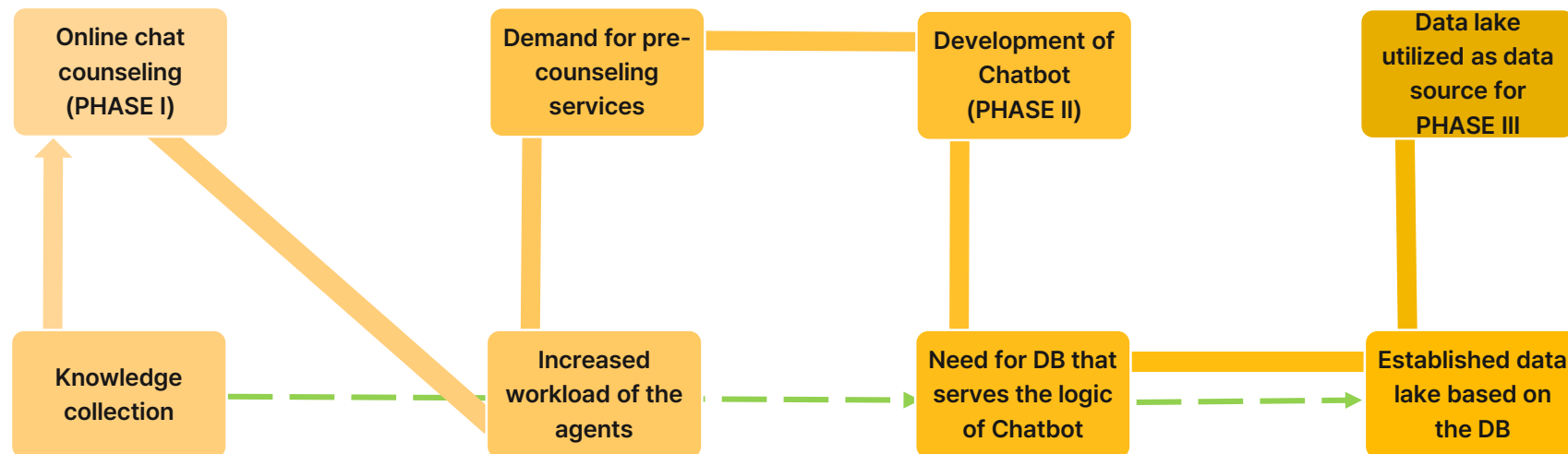


Challen- ges

What were the major challenges we faced in the process of deploying AI and what efforts were made to address these challenges?

Challenges we faced in the process of deploying AI

- **Note:** Not all challenges that arise in one phase do not always end up with a clear solution in the next phase. There are interrelated aspects between each phases. In each phase, there has been attempts to address the challenges identified in the previous year, but they do not and cannot serve as the ultimate solution.



Challenges we faced in the process of deploying AI: Technical issues

① AI hallucination

Issue:

- Incomplete, biased and defective training data results in LLM learning incorrect patterns and returning prediction errors



Countermeasure:

- Improving data bias
- Continuous testing and refinement of the system
- Increasing user feedback

② Interoperability issues with the existing system

Issue:

- The automatic drafting program relies upon the information received via SOBINET, an intranet for consumer complaint management
- Not all necessary information is being entered into SOBINET, leaving holes in the draft



Countermeasure:

- Fine tuning between the existing system and the new drafting system based on the feedback from the in-house lawyers and employees

Challenges we faced in the process of deploying AI: Technical issues

③ Difficulty of composing standard responses for the Chatbot

Issue:

- 2,000 responses created right after the implementation of online chat counseling service do not align with the logic of the Chatbot



Countermeasure:

- Utilizing the initial responses
- Newly created 7,000 responses will be uploaded to the Knowledge DB for the Chatbot

④ Chatbot returning inaccurate responses

Issue:

- Just like Knowledge Vine II, the Chatbot may also return inaccurate responses



Countermeasure:

- Requires continuous update of the standard responses

Challenges we faced in the process of deploying AI: Institutional or Environmental Issues

① Privacy issues

Issue:

- The data lake includes personal information, raising concerns about potential data leaks



Countermeasure:

- Adoption of LLM model to identify personal information and go through anonymization and de-identification

② Difficulty in inter-departmental collaboration

Issue:

- Ideally, the teams who actually handle consumer redress should review the standard responses for the Chatbot
- Due to the backlog, it is difficult to ask for their cooperation



Countermeasure:

- Since Chatbot is designed to aid consumers in the initial stage of counseling, it is unlikely that it will reduce the number of redress cases
- Another countermeasure to be developed to increase the speed of redress process

Challenges we faced in the process of deploying AI: Institutional or Environmental Issues

③ Low awareness of the AI-based tools among employees

Issue:

- AI tools need data with high level of quality and quantity, and also users' feedback
- Many employees are still not familiar with the tools and choose to follow existing practices



Countermeasure:

- Work Guide Bot will officially be launched during the first half of the year
- Digital Strategy Team plans to hold an introductory briefing of the AI-based tools

Going Forward

**What
is
happening
next?**

Going forward

- 'Work Guide Bot' and 'Knowledge Vine II'
 - New name for the Bot!
 - Official launch between March and April, with an introductory briefing of the tools
- Dispute Settlement Drafting Tool
 - Currently going through system improvement based on the feedback it received from the first demonstration
 - Test operation coming in March
- Chatbot
 - Currently out of service for system improvement
 - Once standard responses are uploaded to the Knowledge DB, Digital Strategy Team will go through another test operation to locate further areas to be fixed
 - Planning to draft a manual on knowledge management in the second half of 2025 (tentative)

Thank you!

Please direct any questions to following email addresses ☺

yna@kca.go.kr

international@kca.go.kr

