



Innovation, Science and
Economic Development Canada

Innovation, Sciences et
Développement économique Canada

Canada

Digital Transformation Service Sector (DTSS)

ISED's Virtual Assistant Technology



Agenda

- ISED's Virtual Assistant Background & Purpose
- Where We're at Now
- Benefits of Using Virtual Assistant Technology
- Customer Experience Success Factors in Virtual Assistant Use
- Appendix
 - Web Chatbot and Mobile Chatbot Metrics

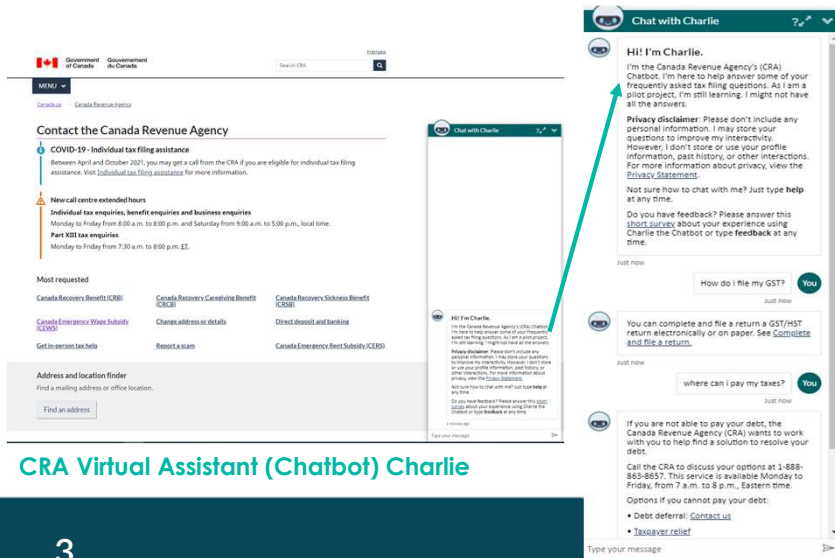
ISED's Virtual Assistant Background & Purpose

Background

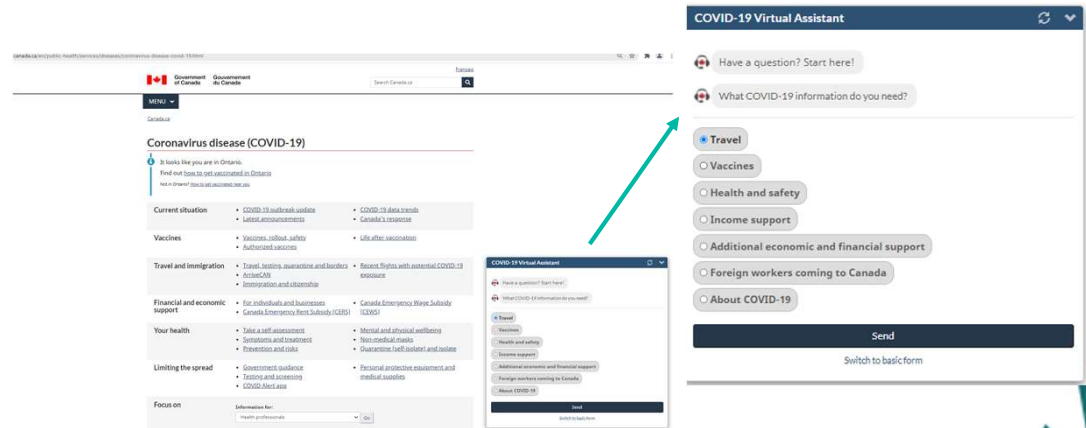
- ISED began implementation of Virtual Assistant Technology in 2019 with a product called Chatbot. The current ISED chatbot is named 'Business Assistant'. Virtual Assistant is a communications channel Canadians can currently leverage when landing on ISED's webpages and Mobile app

Purpose

- It's first implementation was launched in 2019 as an initiative to advance our digital innovation in channels that interact with Canadians
- Configuration of Virtual Assistant is dependent on each client needs – a virtual assistant can be a guided experience like the health Canada Covid Assessment bot, a call centre chatbot to answer FAQ's, a program or service virtual assistant to help you apply or procure information on that specific service in a personalized way



CRA Virtual Assistant (Chatbot) Charlie

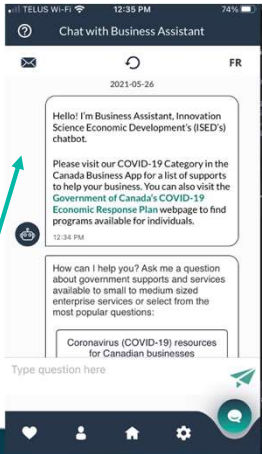
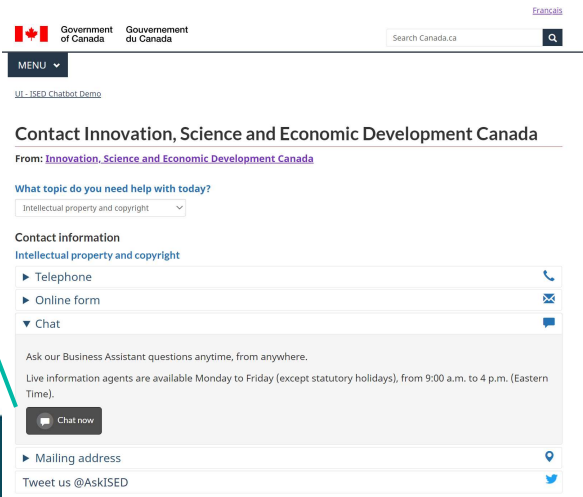
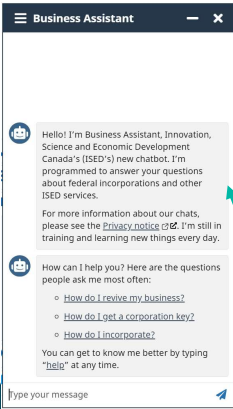


PHAC Virtual Assistant (COVID Assessment)

ISED's Business Assistant Background & Purpose

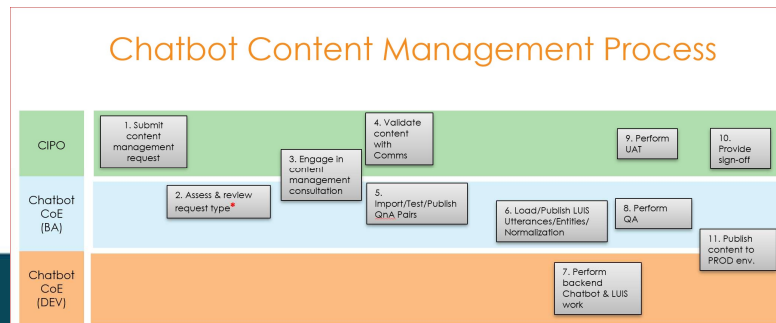
- Built as an enterprise FAQ Chatbot, with FAQ-based capabilities, that provide a question/answer conversational tone with the user
- Tailored to help Canadian Small Medium Enterprises get answers to questions about ISED programs and services that may help them with their business needs while having a conversational experience
- Current implementations target an audience of Small Medium Enterprises (SMEs) finding government support information
- Business Assistant is currently leveraged by Canada Business App (a mobile channel serving a list of programs and services for SME's), and on our web channels for Strategic Communications Marketing Sector, Corporations Canada and Canadian Intellectual Property office

Examples of ISED's implementation of Virtual Assistant (Business Assistant Chatbot)



Where We're at Now

- Canadian Intellectual Property Office (CIPO), Corporations Canada (CC) and Strategic Communication and Marketing Sector(SCMS) are using the web and mobile Chatbot to help reduce calls to call centres and offer enhanced service when providing information to Canadians who visit their websites or applications
- In addition to CIPO, CC and SCMS, Chatbot also includes content for the following sectors
 - Innovation Canada
 - Digital Skills 4 Youth
 - Canadian Small Business Financing Program (CSBFP)
 - Women Entrepreneurship Fund (WEF)
 - Connect to Innovate
 - And more being added routinely...
- We have also implemented a connection to LiveAgent which is activated when the bot cannot answer the question the user is asking. A live agent transfer is initiated. Depending which bot you are using it will direct you to the appropriate help desk (i.e. ISeD main Customer Service (SCMS), CIPO or CorpCan)



Benefits of using Virtual Assistant Technology

- Virtual Assistant Technology can provide numerous benefits to sectors, programs and organizations in a form of providing expanded customer service
- Strategically the use of virtual assistants allows organizations to:
 - **Make better use of their employees**
 - If the assistant is programmed to help service clients with information that would otherwise come in through email or phone calls
 - Allows employees time to focus on higher value tasks that would perhaps otherwise be used responding to clients where virtual assistant can be programmed to do so
 - **Saves time and money**
 - Offers flexible support alternative to the user in asking and obtaining questions – as virtual assistant is active 24/7
 - Virtual Assistant also has the benefit and option of applying Artificial Intelligence(AI) to better understand customer needs and the responses that could be provided to enhance customer service
 - Metrics and analytics let's sectors, programs and service owners further insight into their customer's/client's requests for information to further enhance customer service needs

Customer Experience success factors in Virtual Assistant use

- Digital adoption of the virtual assistant technology is largely based on the amount of content that is curated to service the customer service experience
 - For example, a Chatbot will have a knowledge base of questions and answers to directly answer your customers' questions, reducing time for customers to find an answer.
 - They redirect your customers/clients to content so they can quickly help themselves, improving the customer experience.
- When implementing the bot to serve a broad subject matter (such as information on government supports for SMEs), it is better to have as much relevant content as possible for the user should they want to ask questions pertaining to that organizations programs and services
- Support and maintenance of content is ongoing to ensure the client's needs are being met

Appendix

Web Chatbot and Mobile Chatbot Metrics

Business Assistant Chatbot

Total Conversations **566** ↑ 26%

Monthly Usage Statistics Oct 1 – Oct 30, 2021

Total Monthly Conversations

Corporations Canada- 308	↑ 13%
CIPO – 165	↑ 27%
Canada Business App – 93	↑ 111%

Average Daily Conversations

Corporations Canada- 9.9	↑ 8.7%
CIPO 5.3	↑ 23%
Canada Business App – 3	↑ 100%

Live agent requests

Corporations Canada- 96	↑ 8%
CIPO –47	↑ 46%
Canada Business App (SCMS) – 1	↑ 100%

Conversation Stats

Number of successful questions answered 331	↑ 28%
Number of questions asked with no answers 325	↑ 23%

Chatbot answers

of QnA pairs added – 0 ↓ 100%

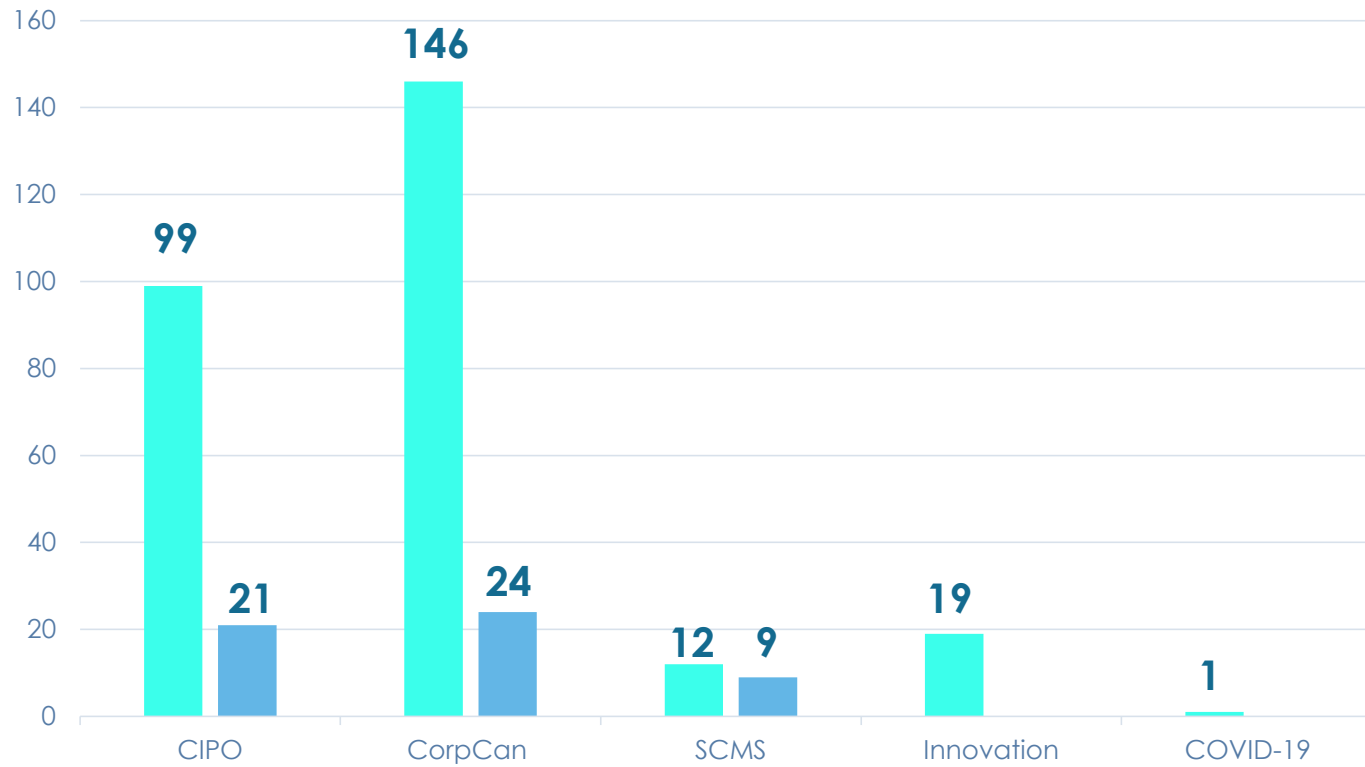
Total number of QnA Pairs – 394

User satisfaction rating

CBA Rating – 3.9 ↑ 5%

Business Assistant Bot Metrics (Web and Mobile)

Answered Questions
Oct 1 – Oct 31, 2021



325 Unanswered Questions related to business supports

Oct 1 – Oct 30, 2021

* Note: Unanswered questions are analyzed each month by subject matter owner to increase content if required to satisfy future user requests

Business Assistant Chatbot Metrics

	Corporations Canada Cumulative Nov 3, 2020 to date	Corporations Canada Monthly Oct 1 – Oct 31, 2021	CIPO Cumulative Nov 3, 2020 to date	CIPO Monthly Oct 1 – Oct 31, 2021	Canada Business App Cumulative Nov 3, 2020 to date	Canada Business App Monthly Oct 1 – Oct 31, 2021
Total # of Unique Conversations	3,710	308	1,920	165	1,168	93
Feedback						
• Bad Answer	47	3	97	6	5	1
• Bad Website	17	1	43	4	1	0
• Good Answer	50	3	152	16	29	2
• User Input	97	7	153	13	10	2
Menu Request						
• Restart Conversation	21	2	8	0	112	10
• Language	14	5	8	2	281	42
• Email Transcript	14	1	6	2	183	20
• Print Transcript	8	1	0	0	0	0
• Privacy Notice	2	0	0	0	0	0
• Sound	65	7	22	0	26	7
• Help	27	4	6	2	0	0
Request Results						
• Good Answer	2,910	168	1,321	129	620	76
• Multi-Answer	103	14	159	12	53	4
• None-Intent (out-of-scope request outside the Bot's KB)	795	121	400	38	328	41
• Zero Answer (in-scope request the Bot is not able to answer)	3,859	305	1,930	143	606	62