ebm

Empowering organisations to create, manage and scale engaging Chatbots and Conversational AI solutions.

FILAMENT cx

THE ENTERPRISE CONVERSATIONAL AI / CHATBOT AGENCY & PLATFORM.

Go beyond chatbots by empowering your charity to embrace conversational AI and create, manage and scale engaging digital assistants.

KEEPING GOOD COMPANY:
TRUSTED BY UK ORGANISATIONS, CHARITIES & BRANDS

L'ORÉAL   TESCO   HSBC   Rentokil Initial   GOV.UK

NSPCC   VERSUS ARTHRITIS   Kids Help Phone   NHS   RISING ACADEMY NETWORK

Boehringer Ingelheim   Cadent Your Gas Network   Northern Gas Networks   ICAEW CHARTERED ACCOUNTANTS   Admiral

PARTNERING WITH TRUSTED TECH

Microsoft   Google Cloud   IBM Watson

WFILAMENT CX

Our unifying mission is to help our enterprise clients build engaging customer and colleague experiences through conversational AI technologies as well as growing our client's internal capability. We accelerate innovation, enable deployment at scale and empower continuous improvement of your Conversational AI offering.

We have also developed our own SaaS product (CXaaS), to deliver this capability to organisations. We call it the Enterprise Bot Manager (EBM for short!). EBM has been built to work with the major existing natural language processing technologies from Google, IBM, Microsoft & Rasa and enables our clients, to build, monitor and maintain chatbots securely and efficiently.

ebm

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The Enterprise Chatbot CMS.

Go beyond chatbots by empowering your teams to embrace conversational AI and create, manage and scale engaging digital assistants with EBM.

enterprisebotmanager.com

Scale and accelerate your Conversational AI

EBM (The Enterprise Bot Manager) is a no-code/low-code platform that can provide you with the tools and operating model required to quickly and effectively deliver your digital assistant program and to manage and monitor it for continued success.

Automate customer and employee conversations, business processes and tasks so that people can add value in the areas that can't be automated.

Using the latest Machine Learning algorithms in an NLP-agnostic platform, EBM streamlines processes and enables you to maintain complete control of your data and IP.

All-in-one chatbot management software

EBM provides the features to fulfil the majority of your key requirements out-of-the-box and helps accelerate the development of bespoke features.

Content management
Create, test, monitor and manage content with our easy to use visual content builder

Channel integrations
Integrates with key messaging / voice channels so your users can interact with your bot whenever and however they prefer.

Content templates
Quickly and efficiently start building you chatbots with ready-to-use templates and customise them however you like.

System integrations
Integrate with multiple channels and back end platforms to control your end-to-end customer bot journey

Work collaboratively
Manage multiple teams working collaboratively on bots across the organisation

Enterprise readiness
Maintain ownership and control of data and IP on a scalable and secure infrastructure

Advanced analytics
Pinpoint high impact content areas to retrain and drive business objectives / metrics

HOW EBM DELIVERS A RETURN ON YOUR INVESTMENT

Reduced development
EBM provides the features to fulfil the majority of your key digital assistant requirements out-of-the-box and helps accelerate the development of bespoke features

Regularly released features
Driven by a roadmap that is defined by our customers' business and user needs, EBM is updated every two/three weeks with improvements and new features

Self service
EBM offers easy to use features and an operating model to enable your department teams to build and manage bots without the need for external support, increasing in house development capability
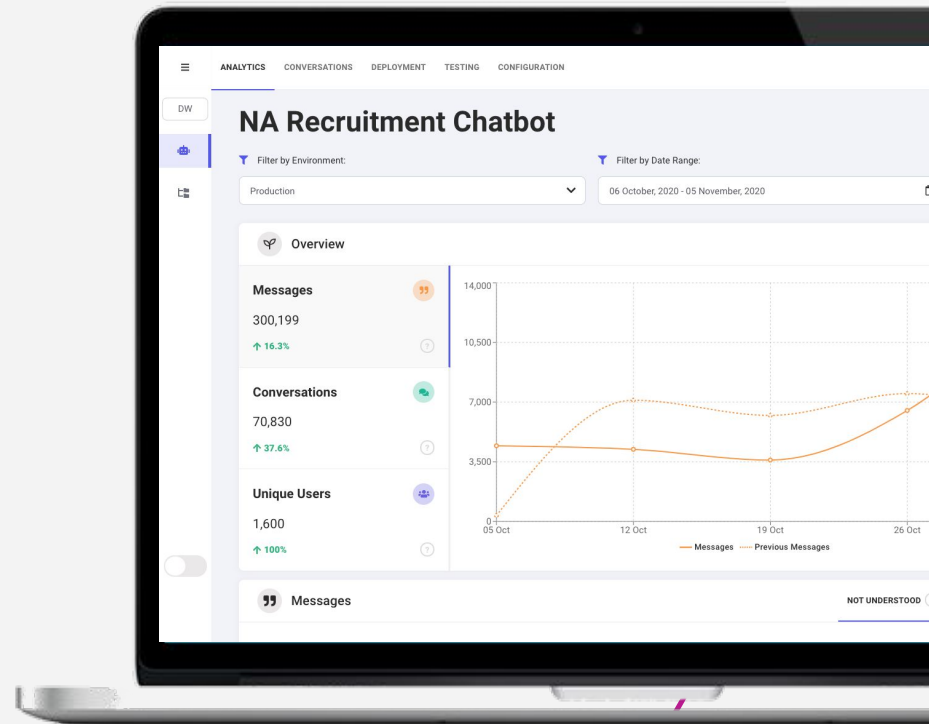
Unlimited bots
EBM provides you with a centrally controlled platform to create, test and build bots for different use cases and functions across the NGN organisation

Advanced analytics
EBM provides the analytics and retraining features to enable you to gain insights from user engagement and drive further value to the user

OUR SERVICES

We support customers with consultancy, implementation and staff training around every aspect of conversational interface development and ongoing maintenance once a chatbot solution has been implemented.

Implementation

We scope and validate concepts before full delivery - from conversation design channel strategy, integrations, bespoke development, chatbot build / configuration and testing.

Support

We work with you to build a support model that helps you make the most of our platform.

Consultancy

We assist and guide our enterprise clients on how to incorporate conversational AI solutions (chatbots, digital assistants and voice) as part of an overall digital strategy.

Training

Helping you to use your Conversational AI platforms to their full potential and take control of your solutions.

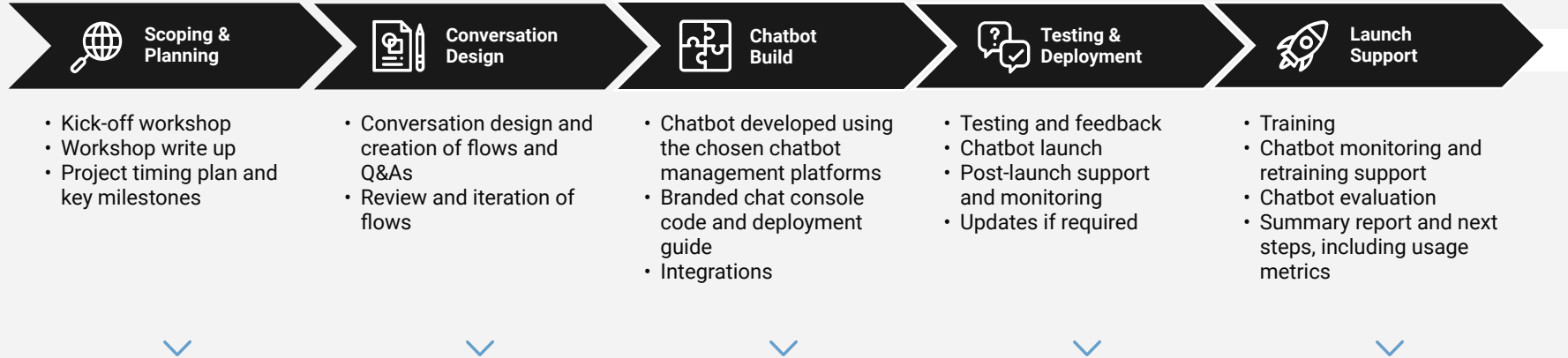# TYPICAL CHATBOT DEPLOYMENT PROCESS

We have developed a tried and tested process, which will allows a project to move rapidly yet prudently through five key phases. This will provide you with the basic functionality to go live, start adding value and empower each bot to continuously improve, introduce new content and functionality and respond to the evolving demands of your users.

Scoping & Planning	Conversation Design	Chatbot Build	Testing & Deployment	Launch Support
• Kick-off workshop • Workshop write up • Project timing plan and key milestones	• Conversation design and creation of flows and Q&As • Review and iteration of flows	• Chatbot developed using the chosen chatbot management platforms • Branded chat console code and deployment guide • Integrations	• Testing and feedback • Chatbot launch • Post-launch support and monitoring • Updates if required	• Training • Chatbot monitoring and retraining support • Chatbot evaluation • Summary report and next steps, including usage metrics

What we will need from the customer

• Key stakeholders to attend initial workshop • Relevant IT contacts & guidance on policies • Brand guidelines	• Access to content needed for the bot • Review and approval of conversational flows	• Setup of relevant accounts with chatbot services	• Key stakeholders (and ideally end users) available for testing • Technical contacts to deploy the bot to your website	• Business user(s) responsible for monitoring and updating the bot

OUR WIDER AI CAPABILITY AREAS

Our Conversational AI platform and expertise bridge seamlessly into our wider AI capabilities. Go beyond basic chatbots and transform your data into new business assets with applied AI.

NATURAL LANGUAGE PROCESSING

Our team draw upon state-of-the-art knowledge emerging from academia with experience using technologies such as deep neural networks and topic modelling. We carry out varying tasks for our clients such as detecting emotional content, extracting pertinent keywords and useful information such as names, places and dates.

COMPUTER VISION

We have strong credentials with tasks such as object detection and tracking as well as image classification. Our team make use of Convolutional/Deep Learning approaches as well as traditional image processing in order to build models that best fit our clients' needs.

STRUCTURED DATA & REGRESSION ANALYSIS

Our data science team are able to build models that work directly with numerical data. Such techniques can be applied to a wide variety of use cases. From modelling and predicting forecast financial growth to predicting when an industrial component might fail in dangerous/inaccessible environments.

MODEL PERFORMANCE & QA

The quality of the data used to train a machine and the features extracted from that data are as important as selecting an appropriate algorithm. Our team have dealt with a huge number of data cleaning scenarios and are on hand to offer advice on some of the challenges associated with data collection.

BIG DATA & CLUSTER COMPUTING

We have extensive experience in dealing with "big data" challenges using frameworks such as Apache Hadoop and Spark to perform data extraction and machine learning at scale.

SELECT
CASE STUDIES

HSBC -AiDA

Supporting HSBC Retail Bank on a transition to digital customer service

Since 2018, EBM has enabled HSBC US to run their AiDA customer service chatbot, trained on high volume customer enquiries. AiDA integrates with Google Dialogflow for NLP & LiveEngage from LivePerson for human handover, EBM providing huge advantages to agility and cost of ownership.

Outcome

- 90% cost reduction for calls handled by the bot
- Saved customers 12 minutes per chat, cut handling time by 50%
- Achieves CSAT comparable with human counterparts

What happens next

Built on the success story of AiDA Phase 1, Filament has won the contract to support HSBC to scale their conversational banking across multiple Business units and geographies. EBM enables the in-house team to continuously improve and progressively scale AiDA with a view on expanding existing functionality with further use cases (e.g. authenticate users and access their CRM or account details).
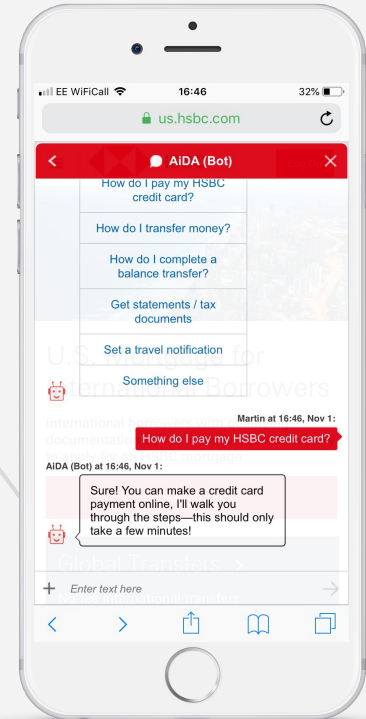
Rentokil Initial - Bessie

Partnering with systems Integrators to help streamline Rentokil's customer support

We partnered with Rentokil Initial to build a suite of chatbots to support their Pest and Washroom businesses in the UK.

Rentokil had a costly out-of-hours service whereby a 3rd party was paid to answer calls and raise tickets on their internal system. The calls mainly involve collecting details of a customer's problem and their contact information so that a Rentokil agent can get back in contact with them during working hours to provide a quote. This was a perfect use case for automation, so we built chatbots to take on this out-of-hours functionality.

In addition to raising sales tickets, the digital assistants also provide answers to common FAQs and can confirm next delivery dates (via an integration with their CRM) to authenticated customers.

The chatbots now handle all out-of-hours interactions and integrate with Rentokil's ticketing system to raise a ticket with the appropriate coding and customer details so that Rentokil agents can pick them up during working hours.

We also integrated with Rentokil's live chat system, Avaya, so the chatbots can triage enquiries during working hours, handing over to contact centre agents when necessary.

In 2021, Rentokil Initial attributed over **£1m** worth of sales revenue to their suite of chatbot(s).

Rentokil Initial
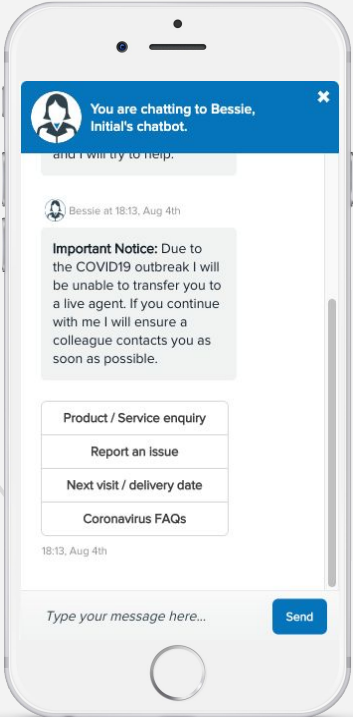
NSPCC: CUBIE

Building a digital assistant to assist Childline counsellors and deliver relevant support to young people in need

The National Society for the Prevention of Cruelty to Children (NSPCC) is the UK's leading children's charity. It has been looking out for children for more than 130 years, with the vision to stop child abuse and neglect.

The NSPCC works with tens of thousands of children every year, covering a wide range of physical and mental health issues. During the pandemic, Childline counsellors have delivered over 170,000 counselling sessions to children and young people. Mental and emotional health make up over a third of all the counselling sessions delivered.

In the past, this scale has presented a challenge in regard to ensuring that every young person gets the support they need. Through Childline, young people up to the age of 18 can access counselling sessions via web chat to get advice around issues ranging from school exams to self-harm and suicide. As these are extremely sensitive issues, conversations can't be rushed.

With this issue in mind, we were selected by the NSPCC to deliver a digital assistant to assist Childline counsellors and keep young people on the web chat platform engaged with relevant and informative content during waiting periods.

Implementation

The first task was to understand the varying levels of urgency for the different issues young people use Childline for, and tailor how the digital assistant responds. For example, a young person that needs information or quick advice doesn't necessarily need to wait to speak to a counsellor and can be signposted to appropriate non-live support, whereas other issues carry a greater element of risk or emotional need.

We worked with Childline to understand those risks and build this into the digital assistant. Natural Language Processing (NLP) capabilities through Microsoft LUIS tease out keywords and sentiment, enabling the digital assistant to guide the young person to the relevant content or preparation for their chat with the counsellor.

Written content and resources provided by the NSPCC's experts were then encoded into the EBM platform. This was followed by a round of user interviews, including visually impaired children and those with dyslexia, to test their engagement. As the messages children type aren't always well constructed – they're often blunt, to the point, with spelling mistakes and abbreviations – the system had to be able to interpret everything and point users in the right direction.

Finally, the build involved a considerable amount of process integration when it came to hooking the EBM platform into the NSPCC's existing custom solutions. Thanks to EBM's agnostic approach to integrating with other systems and infrastructures, we were able to integrate the digital assistant into the charity's processes. They can now see these digital conversations alongside live chats, delivering a streamlined approach to counselling and child support.

The nature of the platform also means that NSPCC staff are able to own and manage the digital assistant themselves. They can analyse the conversation logs, change responses when needed and add new content without any technical expertise – empowering the team to quickly make updates that enhance the level of support delivered to young people.

Results

With the digital assistant in place, the NSPCC has found that young people are more prepared for conversations with human counsellors. They are able to ask questions and formulate their thoughts as they wait, resulting in them being more relaxed and prepared by the time they get through to a counsellor. When a counsellor does become available, the young person can choose to stay with the digital assistant or move to the counsellor chat.

Counsellors can also view the transcript of the conversation with the digital assistant, which supports the conversation by providing useful insight into the issues a young person may be struggling with and helping them deliver more effective advice.

In addition, the digital assistant has strengthened existing risk management by categorising risk and enabling the Childline service to appropriately manage this.
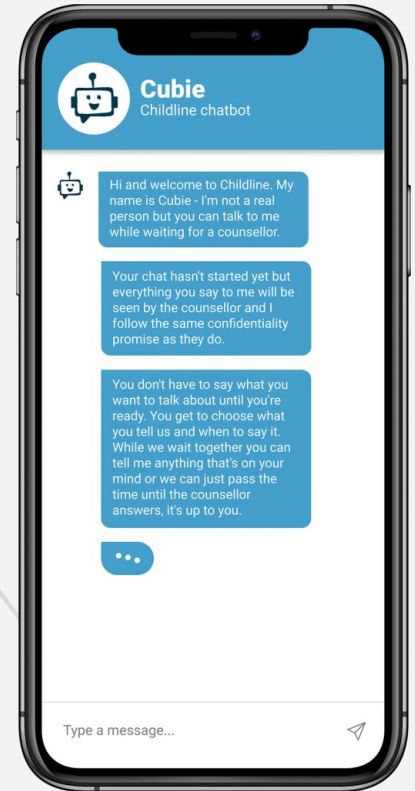
"The digital assistant has significantly enhanced the way in which we are able to support young people in need. The technology makes it easier to get them the right support at the right time based on their specific situation, as well as enabling us to help more children with the same internal resources. It provides vital assistance to our counsellors, helping them do their jobs more effectively and assist as many young people as possible."

Shaun Friel Childline Director | NSPCC

"There was an excellent partnership approach that you and the whole Filament CX team have shown throughout the project. I have heard this from others too. I would like to say a belated big thank you for all you have done and are doing and especially for the style of engagement. Many companies talk about creating a partnership but rarely do suppliers show the commitment and flexibility we have seen from Filament."

Gordon Gillespie Director of Operations | NSPCC

NSPCC

Cubie
Childline chatbot

Hi and welcome to Childline. My name is Cubie - I'm not a real person but you can talk to me while waiting for a counsellor.

Your chat hasn't started yet but everything you say to me will be seen by the counsellor and I follow the same confidentiality promise as they do.

You don't have to say what you want to talk about until you're ready. You get to choose what you tell us and when to say it. While we wait together you can tell me anything that's on your mind or we can just pass the time until the counsellor answers, it's up to you.

Type a message...

NHS HEALTH EDUCATION ENGLAND

Multiple digital assistants to help support over 160,000 healthcare staff with their training and recruitment requirements

NHS Health Education England (HEE) supports the delivery of healthcare improvement to the patients and public of England by ensuring that the workforce of today and tomorrow has the right numbers, skills, values and behaviours, at the right time and in the right place. Supporting over 160,000 healthcare workers, HEE's work covers more than 100 programmes from planning and commissioning, to recruiting and developing healthcare staff in a range of healthcare and community settings.

HEE has experienced an increase in enquiries and needed a solution that would provide easily accessible, accurate responses to a host of common questions, while helping to free up its staff to deal with more unusual or complex concerns.

HEE has used EBM to create and manage four digital assistants each accessible via chat consoles deployed to the organisation's websites:

- **Self-Assessment Portal - Portia** provides 24/7 support for prospective applicants and existing traininees using HEE's Self-Assessment Portal. Portia will be integrated with the portal website and answer questions on how to use the portal.
- **Medical Specialty Recruitment - Spectra** provides 24/7 support for prospective applicants and existing trainees undertaking Medical Specialty Training. Spectra is integrated into the HEE's website and provides guidance on the application process and information about the curriculum.
- **NHS UK Foundation Programme - Dr Bot** provides 24/7 support for prospective applicants and existing trainees undertaking the UK Foundation Programme, a training program all medical graduates looking to work in the UK have to complete. Dr Bot is integrated into the Foundation Programme webpage and provides application guidance and links to online resources on this website.
- **COVID-19 support - Charlie** provided 24/7 support regarding the impact that the pandemic had on NHS's recruitment and training for doctors, dentists, nurses and many more roles in 2020. Charlie was integrated into the COVID-19 guidance pages on the HEE website so users can easily access the bot wherever they are browsing.

We're continuing to work with the NHS on implementing new virtual assistants to help different functions across the organisation.

"As a sector that has been hugely impacted by COVID-19 and the ever changing uncertainties and changes that it has brought. Our chatbots have been invaluable in helping to deal with a very large volume of enquiries that would have gone straight to our inbox. Having a chatbot has really helped to relieve pressure on our very small team.

The product itself is very easy to use which has really helped us to provide the most up-to-date information very promptly; additionally the analytics have provided very insightful information. The EBM team are so approachable and have been extremely helpful in getting our chatbot set up and all other support required."

Gemma Palopoli Project Coordinator | NHS Health Education England
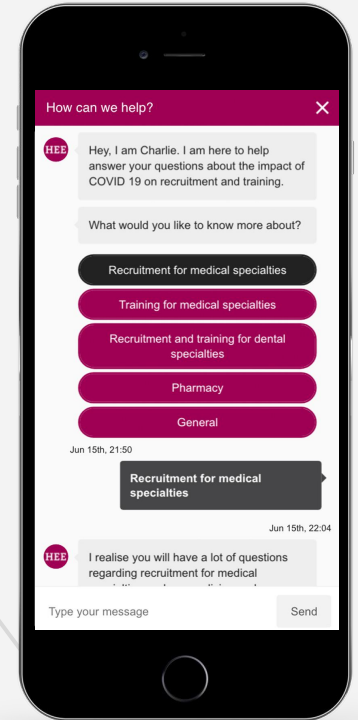
TESCO - TESS BOT

Supporting colleagues with learning and development - guiding them to the right training and resources

The Product Learning and Development team at Tesco support thousands of colleagues each day, providing training materials and guidance on a wide range of topics. Due to legacy systems, colleagues were struggling to easily find the right learning content and the L&D team, with stretched resources, were unable to provide 1:1 coaching for all. Tesco were looking for a low cost, high value solution to better cater to their colleagues needs.

Solution

Using EBM, we designed and developed Tess, a 24-7 chatbot, allowing colleagues to ask questions and receive answers about learning and development, policies and systems at any time. Tess is integrated on every page of Tesco's L&D SharePoint site so users can access her wherever they are browsing.

Tess is now trained to handle over 150 FAQs (with more being added each week) as well as allowing employees to follow more complex conversational flows to help them find the right information they need.

We trained the Tesco team to use EBM allowing them to monitor all interactions with Tess, through to editing and adding new content on a daily basis.
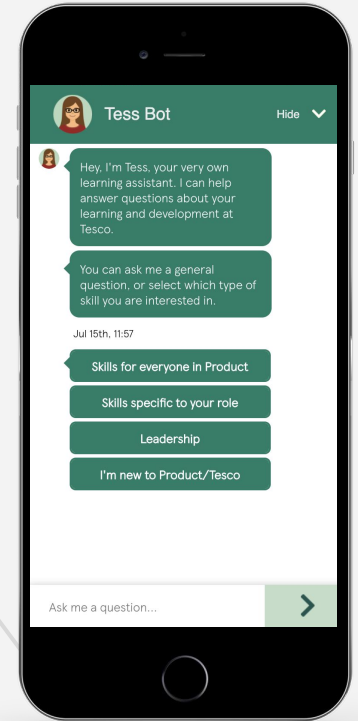
Outcome

Tess has been live for over 6 months and has received an average satisfaction score of 4 out 5. As well as expanding her capabilities, we're working on deploying Tess to Microsoft Teams making her even more accessible to colleagues.

"The Filament CX team share the same passion as we do, keeping the customer at the heart of everything we do. Although the functional side of a chatbot and how it's integrated into your business is vital for it to work, the team never lose focus on what really matters, which is the person interacting with the bot.

The EBM console is easy to use and the customer-influenced roadmap for enhancements keeps it moving forward. We are proud of the colleague-facing chatbot we have created with EBM and have plans to have the bot answering a wider range of queries in the future."

Liisa Brade Capability Manager | Tesco PLC

TESCO

Tess Bot   Hide ⌄

Hey, I'm Tess, your very own learning assistant. I can help answer questions about your learning and development at Tesco.

You can ask me a general question, or select which type of skill you are interested in.

Jul 15th, 11:57

Skills for everyone in Product

Skills specific to your role

Leadership

I'm new to Product/Tesco

Ask me a question... ➤

VERSUS ARTHRITIS: AVA

A digital assistant to provide personalised support and advice to people with arthritis

Versus Arthritis is the UK's largest charity dedicated to supporting people with arthritis. Launched in 2018 following the merger of the two leading arthritis charities in the UK – Arthritis Research UK and Arthritis Care – Versus Arthritis works with healthcare professionals and leading international researchers to help develop treatments and reduce the devastating impact that arthritis can have on people's lives.

Musculoskeletal (MSK) conditions such as arthritis and back pain affect an estimated 18.8 million people across the UK. For people living with the daily impact of arthritis, as well as other MSK conditions, having easy access to accurate and up-to-date information and resources about their condition is crucial.

Aligned with the charity's mission and objectives, Versus Arthritis launched AVA in 2016 to help tackle this challenge. AVA is a virtual assistant that provides a 24/7 resource for people with arthritis and other MSK conditions seeking personalised and easily accessible self-care information.

In 2019, Filament was selected by Versus Arthritis as a strategic partner to help define and deliver a strategy for expanding AVA's conversational AI capabilities. We partnered with Versus Arthritis to help improve the level of support the charity was able to provide to its beneficiaries by improving conversational analysis and resolution, enhancing analytics and retraining tools, and extending access via partner websites and new channels.

Implementation

Our first challenge working with Versus Arthritis was to help it move AVA away from its existing platform onto a more cost-effective and streamlined solution. We started by migrating around 3,000 different intents over to our Enterprise Bot Manager (EBM) platform – a significant migration task that also involved validation and testing of the existing programme.

We soon realised that the amount of information AVA contained was unmanageable in its existing state. As a medical-based concept, subject matter experts were required to ensure the answers AVA provided were factual and accurate. These SMEs helped to build AVA, but the content had become increasingly difficult for them to manage.

By splitting the information into more digestible pieces – i.e. different domains such as surgery, self-care etc. – we were able to effectively restructure and reorganise the data at the back end. As well as making it significantly easier for the Versus Arthritis team to manage the virtual assistant, it also enabled us to introduce new features.

For example, these included a helpline integration feature that let users book an appointment to speak to a helpline advisor directly through the virtual assistant. The platform queries a calendar, identifies any free slots, and offers them to the user – integrating with internal Versus Arthritis processes and adding value to the end user.

Results

The updated and enhanced AI virtual assistant has been a significant success for Versus Arthritis and its user base. Hosting AVA on the EBM platform has provided the flexibility to swap between different natural-language processing (NLP) providers as required, enabling Versus Arthritis to use the best platform for the job without adding costs.

Key benefits include:

- An exponential increase in the number of conversations - from 8,371 to 33,403 in 12 months
- A 35% reduction in the time taken to add or amend content
- A 50% increase in efficiency for people using AVA to speak to a helpline advisor

"Filament CX has been a great support to us as we've expanded AVA's capabilities to provide people with arthritis with the support and advice they so desperately need.

The technology has clearly proven itself and the additional services we've developed on top of the platform have added significant value. We're excited about where AVA could go next."

Karina Brisby Head of Digital | Versus Arthritis
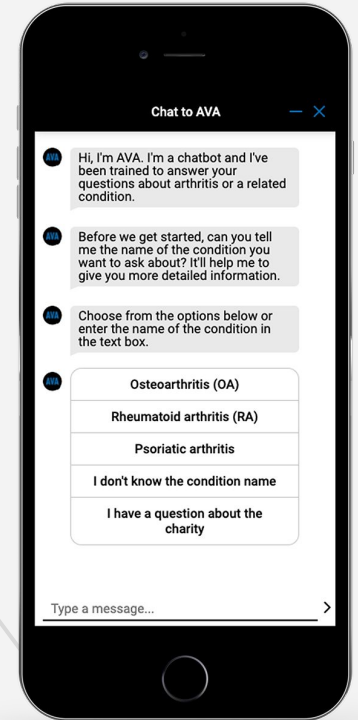
CASE STUDY: Stoke-on-Trent City - 'BinBot'

Streamlining resident enquiries with voice automation

Stoke-on-Trent City Council engaged with EBM to help them to continue to provide a great service to their residents, but also reduce the number of calls and handling time required within their call centre team. Despite providing residents with an online form, Stoke-on-Trent City Council council were still receiving a large volume of calls focussed around missed bin collection.

To help handle the majority of these enquiries, the council used EBM to create a digital assistant that residents can call and interact with over the phone. The automated digital assistant speaks with the user helping them to understand the reason why their bin collection may have been missed, raising a missed bin ticket in the council's system or handing the user over to a human agent if necessary.

Key to the success of the digital assistant was enabling it to accurately extract the users correct address. We deployed a solution to match a user's address to database of all known addresses names in Stoke-on-Trent. Based on a confidence score the bot will return an exact match or the top five matches for their road name for the user to select the right name using their keypad.

Once we have a valid address, the system looks up that address in the council's internal systems and returns relevant bins for that address. Once a user selects the missed bin, the digital assistant looks up if there was a reason logged in their system for the missed bin, if there is a reason, the assistant shares this information with the user.

If there is not a reason, the assistant lets the user log a missed bin ticket in the councils system. It asks them a few personal details, then raises a ticket and returns a ticket reference number.

The next phase of the role out is to allow users to interact with the assistant via text messaging, Facebook Messenger and a widget on the council's website.

City of
Stoke-on-Trent

VIS UNITA FORTIOR

THANK YOU

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