



Ask Northamptonshire Police

## Background

There has been a vast shift in the way the public looks to engage with Police. The public now expects to have 'channel choice' and to be able to contact Policing in the way that is most appropriate for themselves. This takes many forms – phone, internet, social media, messaging – to name a few.

The 'Digital 101' service is an Artificial Intelligence (AI) chatbot. Its aim was to allow interaction for the 101 service with a member of the public through various Social Media and 'chat' platforms. These 'chat' platforms include Facebook Messenger, Amazon Alexa, WhatsApp plus more.

The service has been developed by Futr (previously Botskill) alongside the Police ICT Company. The aim of the Digital 101 service is to replicate and add functionality to the 101 non-emergency number. This enables the public to choose how and when they interact with Policing for reporting a crime or intelligence.

The original aim of the service was ambitious and needed connectivity in to a number of Police systems. Due to the complexity and need for integration of an unknown and untested system, the Northamptonshire Office of the Police, Fire and Crime Commissioner (OPFCC) decided to scale back the functionality for a Proof of Concept. Therefore this turned the service in to 'Ask Northamptonshire Police', a free Frequently Asked Question (FAQ) service available on Facebook Messenger and Amazon Alexa. This utilised existing publically available information from a variety of online sources.

## Testing

Testing was carried out by [REDACTED] Digital Delivery and Cyber Engagement Manager, OPFCC, in August 2019. A full question set report can be provided upon request.

A random sample of 72 questions, taken from the 3000 question bank provided by the supplier. Each question was asked to Facebook Messenger and Amazon Alexa. It should be noted that this was initial testing of a Proof of Concept and the responses were not tailored nor optimised to provide a response through these chat channels.

In order to answer a question posed by a user, the chatbot uses a confidence score to give the appropriate answer. The confidence score is a predetermined threshold that dictates how and what response is given. If the score is below the threshold, then a preprogrammed fall back response is given, such as 'You are the first person to ask that question'.

Questions were asked in one of three ways:

- Exactly worded to the supplied Question Sheet,
- Changing the wording of the question but keeping the sentiment the same, or
- Asked in the tester's own words.

The question responses were scored using a RAG (red, amber, green) status on the appropriateness of the response given. The results are shown in the following table.

	Facebook Messenger response	Amazon Alexa response
Red – Response inappropriate, incomplete, did not answer question or no response	8	8
Amber – Response is valid but needs further information or user interaction	6	7

Green – Response is complete and appropriate	58	57
Total	72	72

In the majority of questions asked, an appropriate response was returned and the responses were found to be consistent when compared across the two chat channels.

On 5 of the questions asked, the response was inappropriate, not tailored to the question asked or incomplete and did not answer the question. On 3 questions asked, the chat channels gave no response.

In some cases, when a synonym was used or the question was asked in the tester’s own words, a mixture of responses were observed. The result of these changes were random; some questions were answered appropriately when a synonym was used, i.e. /overseas/abroad, and in some cases no response was received.

Of the questions asked to Amazon Alexa, 57 responses were succinct and gave a URL to find more information. This URL was either [www.northants.police.uk](http://www.northants.police.uk) or [www.askthe.police.uk](http://www.askthe.police.uk) and in some responses this would be too generic, for example. /if a user is asking about victim and witness services they should be directed to the VOICE website.

Of the questions asked to Facebook Messenger, 58 responses were appropriate and gave an informative response. Some of the responses were very long and on 4 of the questions asked, responses ranged from 17 to 26 separate messages sent to the end user.

There was no ability to ask follow up questions on either chat channel at the time that this testing was conducted. When asked a follow up question in Facebook Messenger a completely different response was given. On asking Amazon Alexa, it is necessary for the user to state ‘Ask Northamptonshire Police’ for every interaction, which could become an annoyance for the end user.

The testing was given back to Futr, along with some recommendations to improve the service. No further testing has yet been conducted.

### Next Steps

This service is now being offered nationally to the 43 Forces in England and Wales. Northamptonshire Police are in a unique position to be offered the service first as we have lent a lot of time, resource and effort in to the Proof of Concept.

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