Overcrowding in Hospital Emergency Rooms

There are over 200 health-related information providers in Australia, but they form a horde of disconnected channels that make it difficult for citizens to find the right answers. As a result, citizens often use either unofficial means to self-diagnose or head to the hospital emergency room (ER) for minor health-related issues. Healthdirect, a national and government-owned not-for-profit organization, aimed to address these issues so that the Australian healthcare system could better serve the healthcare needs of their citizens.

Disconnected Data Leading to Misdiagnosis

In 2015, the University of New South Wales published a study where 7.4 million ER incidents were registered, increasing at a rate of 4.5% per year. The study indicated that over half (52.8%) of all emergency incidents were not urgent, leading to unnecessary costs and lost revenue. With extended waiting times and overcrowding in the ER, the risk of unsafe care and poor quality of services is high. For this reason, citizens began to self-diagnose using web search and webpages that were not properly backed by healthcare authorities.

PoolParty Semantic Suite Connects Data Across Channels for Quick Diagnoses

Using PoolParty’s semantic AI technology, Healthdirect was able to offer quality-assured medical information through various channels. This helps Australian citizens gain easy and quick access to trusted medical advice that has been approved by healthcare professionals. PoolParty Semantic Suite helps Healthdirect Australia not only to connect data but also to re-use content across channels. In the end, citizens benefit from informed decision-making while emergency rooms receive fewer incidents that could be solved otherwise.
Future-proofing and Scaling Healthdirect’s Information Architecture

PoolParty Semantic Suite adds semantic capabilities to Healthdirect Australia’s platform. This capability intelligently combines digital assets that are sourced from over 200 specialized information providers, health organizations, and – not to forget - the content created in-house.

At the same time, PoolParty Semantic Suite allows Healthdirect Australia to manage content which can be used in any channel, such as Google Assistant, Amazon Alexa, SMS messaging service, Facebook chatbot, etc. Because of the ability to re-use data, Healthdirect Australia does not need to create and maintain new content for each specific tool and channel.

This multichannel service strategy is achieved by building and maintaining a knowledge graph as the backbone of a future-proof information architecture.

As a result, users receive advice on the appropriate action they must take in regards to the severity of their symptoms, possible signs of illness, the cause and complications, as well as where they could receive treatment.

Impact

Thanks to Healthdirect Australia’s multichannel service strategy, consumer engagement with Healthdirect content has grown dramatically.

Based on website traffic, their website is now the most widely used Australian health information site in the country. Site visits have tripled in the last couple of years, from 800,000 visits a month in 2016 to 2.5 million in 2018.

New semantic functionalities will be included in the future to add to the portal’s continued growth. For example, Healthdirect Australia is currently working with Amazon to make their content the default health content on Alexa.

You can find out more about HealthDirect Australia here: www.healthdirect.gov.au

![Figure 1: Healthdirect website visits growth](image)