

Case Study: NHS

Exploring People's Needs for Health and Social Care.

In late 2016, NHS Digital had a problem. How to choose which of the thousands of articles to migrate to their new website? They knew how many times each was read... but was there a better way? “[Kaiasm] offered a new perspective on the problem”, said Rob Sinclair, Head of Architecture at nhs.uk.

Kaiasm worried less about the performance of existing content on the nhs.uk site, and more about how much need there was for that content. If a person was asking a health question, and it was answered well by Cancer Research UK, or the Alzheimer's society, did the NHS need to spend effort competing with that? Why not concentrate on what was being poorly answered, where misinformation dominated (such as tabloid stories that X causes cancer, or cures cancer, [or both](#)). This was a data science, quantitative approach, but the data itself was just - people. In their millions, saying what they needed to know, what they were worried about. Saying it again and again.

"I could really see how it would complement, rather than replace, the user research we do", said Sophie Dennis, NHS Digital's Transition Strategy Lead at the time. Sophie explained that Kaiasm's way of thinking about the problem was potentially revelatory: focusing on society's aggregate expressed needs (and unexpressed needs) as a way of understanding both what the demand was, and where the NHS digital team should focus their resources.

"If you don't follow the demand, then prioritisations are just set by NHS England saying 'let's do some content on cancer screening', and off we would go", recalled Sophie. “Kaiasm visualisations show us at high level the strategic content areas we needed to develop, the top five things that people out there in society cared about, worried about... and at a tactical level, it tells us exactly how to, for example, improve the content on migraines”.

The Kaiasm process also highlighted the need for a better 'information architecture' for the site, the system of chunking and labelling content into ever more precise categories. "Traditional card-sorting approaches would take years", said Sophie. "You can only really get a group of users to sort 80 cards at a time, or so people keep telling me" said Rob.

At the time of writing there are around 5,000 high level goals identified, with further 'deep dives' of 500 goals into the specifics of expressed need around diabetes and dementia showed how wide ranging people's worries are: 'dementia friendly gps tracker watches', 'dementia clock', 'gifts for people with dementia', 'father dementia violent'. Very human needs that do not fit well into the NHS's condition/symptom/treatment information model.

Where next?

“In my ideal world, we would spin up 5 product teams and get deep-dives into each of the top 5 demand areas” said Sophie. “We need to do better than just business as usual - card sorting, search engine optimisation, they are too slow, and too small scale. We have built some hub pages, which we never had before, and they have been a big win. But we still have a million leaves and only a handful of branches to support them. There's no design pattern yet for all the twigs that are needed for someone to make sense of a condition like Diabetes, with all its associated needs, both expressed, and unexpressed, but that is something that we can use Kaiasm data to produce”.

Rob Sinclair's take on it was that it is an enormous opportunity. “The data science of it really appeals. To really understand what people are looking for, rather than relying on our echo chamber. By expanding what we know, it gives us a new perspective of what we need to do. We're doing lots of things now with content modularisation, breaking down content and tagging it such that Google can return answers directly in the knowledge panel in the search results”. But he acknowledged “we need more deep dives, to get down into the detail”.

Rob and co are still working hard to get our data used more widely in the NHS, at present planning how extensive a hub page on dementia might be. This can be the pivot around which nhs.uk will be built, a fast focus change from clinical categories to categories of need... “it takes a long time for new technologies to bed in to the NHS. About 17 years”, we are assured by electronic patient record specialists at Leeds Teaching Hospital.

In a post-coronavirus world, we may need to accelerate that.