Simplifying the house buying process with AI

STFC Hartree® Centre worked with Collaborative Conveyancing Limited to speed up the home purchasing process by using artificial intelligence as part of an EDRF-funded CW4.0 programme.

Challenge

One of the most time-consuming stages during the home buying process is conveyancing, with a recent Landmark Information Group report showing a timescale of 133 days from conveyancer instruction to completion. We worked with UK-based company Collaborative Conveyancing Limited, a technology pioneer whose initial focus is solving the long-standing conveyancing enquiries problem. They are building a platform that uses artificial intelligence (AI) to automate the plethora of enquiries that cause so much delay and stress for all parties, many of which are purely administrative in nature, freeing up the conveyancer's time.

Approach

Data scientists at the Hartree Centre used AI and natural language processing (NLP) to automate the categorisation of incoming enquiries. The team built a full software stack to process and clean data by identifying important information and tagging relevant enquiries. This used the Hartree Centre's supercomputing facilities, to enable fast solve times and detailed analysis with 94% of all enquiries identified. The new workflow immediately showed AI improving and accelerating the conveyancer process with the software stack tool developed by the Hartree Centre data scientists.

Benefits

The power of cutting-edge AI is helping to expedite the home buying process, shortening the entire conveyancing stage. The new software stack tool is helping to automate workflows and ease conveyancer workloads, reducing stress and delays. This project has led to a job creation with Collaborative Conveyancing expanding their team by hiring a data scientist to manage the models categorising enquiries. The Hartree Centre is continuing to work with Collaborative Conveyancing to build an automated solution for property lawyers that reads inbound enquiries, classifies them and structures responses.

> " We are using cutting-edge technology and applying this to conveyancing, ultimately making the home buying process quicker, more transparent and less stressful. "
>
> **Chris Harris**
> Collaborative Conveyancing

Cheshire & Warrington
CW4.0

European Union
European Regional Development Fund

> **We are building something that supports conveyancers dealing with the increasingly painful and time consuming task of dealing with conveyancing enquiries, for the benefit of everyone.**

Chris Harris
Collaborative Conveyancing

At a glance

- Reducing stress and delays in the house buying process by developing automated workflows that help to identify and categorise incoming enquiries.

- Speed up the home buying process by using AI modelling and natural language processing.

- Leading to the job creation of a data scientist position growing the Collaborative Conveyancing team.

- Rapidly identifying incoming enquiries with a tailor-made full software stack tool.

Who we are

- 70+ computational scientists and technologists
- World-leading supercomputing and AI infrastructure
- Bespoke small teams built around your project
- Tailored business development support
- Access to our network of industry, academic and technology partners

What we do

- Boost productivity and enhance innovation for industry
- Big data analytics and artificial intelligence (AI)
- High performance computing and quantum simulation
- Training and skills development
- Insights into future technologies

Our impact on UK industry and society

The Hartree Centre was created by UK Government to help businesses and public sector organisations accelerate the adoption of high performance computing (HPC), big data analytics and artificial intelligence (AI) technologies. We play a key role in realising UK Government's Industrial Strategy by stimulating applied digital research and innovation, creating value for the organisations we work with and generating economic and societal impact for the UK.

The Science and Technology Facilities Council (STFC) Hartree Centre is part of UK Research and Innovation.

🌐 **hartree.stfc.ac.uk**   🐦 **@HartreeCentre**   in **STFC Hartree Centre**   ✉ **hartree@stfc.ac.uk**