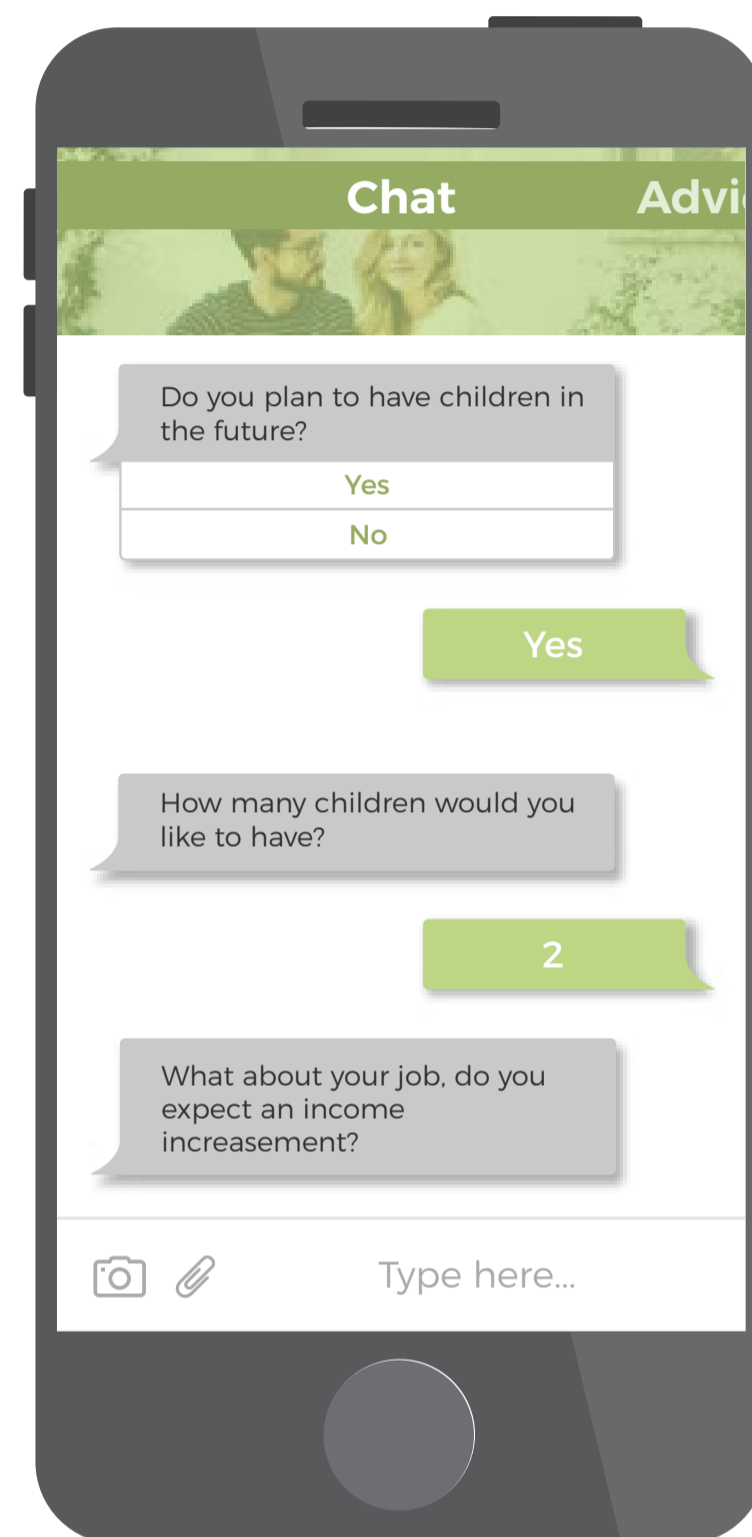


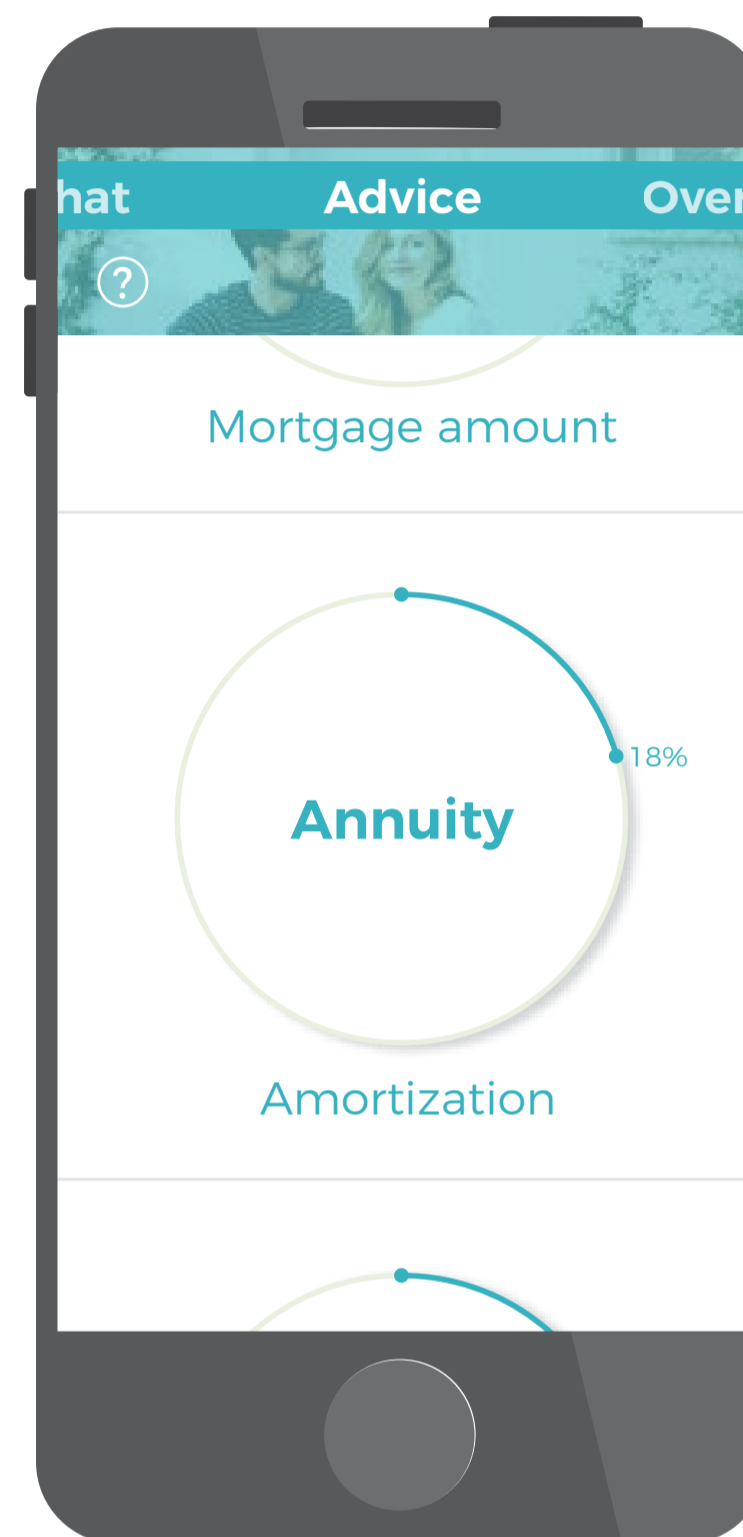
Robo-advice and Chatbots in the mortgage market

Designing the new mortgage journey for first-time buyers



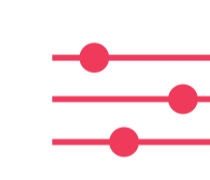
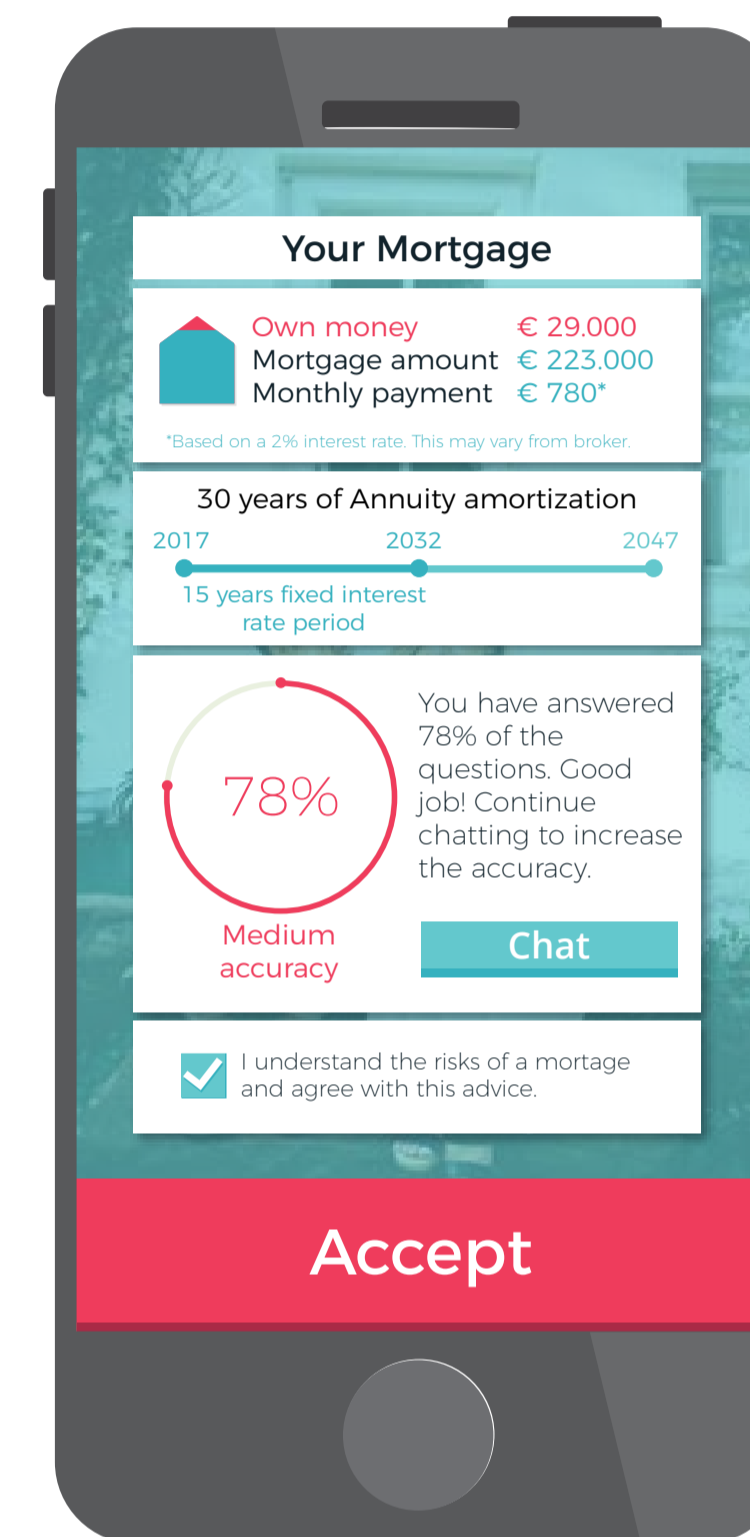
Chat

Chatting is one of the most used communication channels at this moment. Part of this project is to study whether consumers are willing to chat about huge financial decisions such as a mortgage. To apply for a mortgage, a few choices has to be made. For example the total amount of the loan, but also the type of amortization and fixed interest rate period have to be selected. Each of these choices depend on different variables. Two examples of variables are: the wish to have children or the desire to work less in the future. Also the risk someone is willing to take could play a role in choosing the optimal mortgage type. Several variables determining the best choices have been identified. By chatting with a chatbot, the application collects all data from the user and transforms it into an personal advice.



Calculate

A calculation model is created, mostly consisting of linear formulas and a set of rules. Based on the input from the user, provided through chatting, the model calculates the optimal choices. It shows which amount of money the user should lend and for how many years he or she should fix the interest rate. On of the research findings showed the need of flexibility. The model is structured in a way it always produces advice, unregarded the amount of data it receives. Most of the variables are transformed into weight factors, making the model suitable for deep learning technologies in the future.



Apply

In the end it is the consumer who decides whether to accept the advice or not. An overview is shown and all choices can be changed if necessary. Similar to human adviser, the model highly recommends to accept the advice but cannot force consumer to do so. When only a few percentages of the questions in the chatbot are answered, the user is reminded to consult the chat page of the application. At all times the completeness of the advice is presented, forcing users to go for that 100% and receive the most accurate advice as possible. When the recommended options are accepted, a mortgage expert checks the applications. There is no need to visit the adviser anymore, just Say Finn.

Dennis Boesser
The implementation of Chatbots and Robo-advice in the mortgage market
July 6th 2017
Strategic Product Design

Committee Prof. dr. Schoormans, J.P.L
Keller, A.I.

Company Yellowtail

