CASE STUDY:
TROUBLESHOOTING DSL CONNECTION ISSUES USING A MOBILE DIGITAL ASSISTANT

Ole Heydekamp, January 2017
VOICE AT TELEKOM

Conversational UI in Customer Care

- Tinka in T-Mobile.at
- Digitaler Störungsassistent
CASE STUDY INTRODUCTION

Troubleshooting using a digital Assistant

- Insights of a proof-of-concept project
  Sep 2016 – Dec 2016
- Troubleshooting of internet connection issues for DT fixed line customers
- Web based chat bot
PROOF OF CONCEPT

Goals of the project

- Provide solution for different touch points (desktop, mobile, social media)
- Agile development approach
- Incorporate user feedback as early as possible
- Compare DA approach with other existing solutions
- Identify issues of developing of a digital assistant in a big organization
DESIGN THINKING

Involving Stakeholders & Users in the Design Process
BRAND DRIVEN PERSONALITY

Building a relationship
BRAND DRIVEN PERSONALITY

Using design guidelines in the process

- Based on Usage context and maturity of relationship
- Personalized to different personas
- Transporting DTs Brand values
- Defining Voice, Language & Design' pattern
- Consistent through all products
Technical problems are a big customer care issue

A reasonable amount of the problems is not caused by the Telco operator

Goal: pre-check the main known problems and provide solutions

Problem space is a tree structure and the issue can be nailed down using the right set of questions
Previous Approaches

Experiences with Telekom DSL Hilfe

- Similar approaches have been taken previously using a mobile application “DSL Hilfe”
- Question / answer approach
- Best rated application of DT since years
Why to go conversational

- Users are familiar with chat metaphor
- Chat history provides possibility to go back and check question again
- Integration of additional Media
- Break down troubleshooting problem into question / answer approach with more flexibility
- Chat metaphor allows for easy integration with live chat
MULTIPLE FRONTENDS

Separation between backend and frontend

- Separation between backend application and frontends, e.g. to be able to change backend platform in the future
- Abstract representations of inputs and outputs, concrete presentation needs to be rendered by the respective component
- Grammar-based approach in backend
Outputs are represented as JSON data structures, which are rendered at the frontend into a corresponding representation:

```json
{
    "action": "askForConfirmation",
    "data": {
        "question": "Prima! Haben Sie ...?",
        "options": [
            {
                "content": "Ja",
                "correspondingInput": "Ja"
            },
            {
                "content": "Nein",
                "correspondingInput": "Nein"
            }
        ]
    }
}
```
LEARNINGS

So we learned...
LEARNINGS

Approach is accepted – avoid disappointment

PEOPLE LIKED IT
Ease-of-Use & performance
Well known paradigm

AVOID DISAPPOINTMENT
High expectations
Failure lead to low rating

ENABLE HANDOVER
Smart & early
Our customers like the hotline
Age & Tech Affinity are important factors

- Younger users and early adopters are significantly more comfortable with using the digital assistant.
- Twens rate him better than Mid Agers and Best Agers.
- Technical affinity also affects the ratings with innovators rating the assistant better.
NEXT STEPS

What we are working on...
EXPANDING ASSISTANT CAPABILITIES

More channels, handover & voice

- Integration with Messaging channels (Facebook, Telegram, etc.)
- Integration with live text chat (i.e. agent handover)
- Deep integration into native applications to provide voice user interface
- Cover more topics to become an “assistant”
THANK YOU!

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