Ethics in Conversational AI

Respecting privacy while competing in the global chatbot market
Quick introduction

Key Stats:
- Founded in 2016
- 90+ employees
- 74 enterprise clients
- 24 partners

Offices:
- Norway: Stavanger (HQ) and Oslo
- USA: Los Angeles
More virtual agents deployed than any other company in the world

- 160+ live virtual agents
- 1000+ certified AI Trainers
- 10m+ automated conversations
Customers want to engage in conversations, and expect interactions with brands to be:

- fast
- simple
- convenient
The challenge:

Online customer traffic is at an all-time high
The solution:

Strategic automation with Virtual Agents
Conversational AI vs script-based chatbots: It’s all about understanding

Script-based chatbots look for keywords and guess a probable answer.

Conversational AI use Natural Language Processing, Natural Language Understanding and Deep Learning to truly understand the question - and continually learn and improve itself with every interaction.
The tech:

Unrivalled natural language understanding

A virtual agent can’t help anyone if it doesn’t understand what we need help with.

3 key components virtual agents need to understand humans:

1. **Automatic Semantic Understanding™**
   A unique algorithm that finds complicated connections between sentences. ASU is the cherry on top that understands the meaning of any user input - even sentences with multiple intents - and removes dead ends from conversations by removing false positives.

2. **Deep learning**
   A combination of long short-term memory, gated recurrent units and convolutional neural networks (CNN) that identifies and learns how words are used and how they are connected to each other.

3. **Natural language processing**
   NLP consists of several complex processes, such as language detection, spelling correction, stemming and compound word splitting. It’s the quality of NLP that transform messy and complicated queries into information a virtual agent can act on.
Privacy & Security

Secure customers’ data in compliance with laws and regulations, and in an ethical manner.

Give us more data!
Great responsibility:

Every interaction with AI generates data

- **Securing data**
  Data should be handled with care and secured properly.

- **Honest interactions**
  You should be able to know when you are dealing with AI and not humans.
How do you work with personal data?

Two types:

- **Structured/expected**
  - Entity extraction, API data, session data

- **Unstructured/unexpected**
  - Conversation
Core beliefs at boost.ai

- **Features for compliance**
  Implementing functionalities and encouraging clients to minimize data for information they don’t want to store.

- **Fast processing and short retention**
  Immediate analysis of conversations to get what you need and shorten retention periods.

- **Designed to only store what is necessary**
  During the early stages of designing new functionalities we focus on what is necessary instead of how much we can extract.
Kommune Kiri example:

- **Source URL:**
  Determine what answer to use from our partner’s solution. Also used in the Admin Panel to provide context for the conversation.

  Can also be used to make predictions on what actions to take to improve different parts of the webpage to enhance self-service capabilities.

- **Device/User Agent**
  Only used for statistics today, but in the future it could be used to give answers specific for the device the user is on (desktop/mobile).
Our perspective:

▫ **Only temporarily interesting**
  Don’t need or use actual, unanonymized conversation data to train our AI.

▫ **Only extract what you need**
  Immediately delete what you know you don’t want (Partial masking/data minimization)
Thank you for your attention!