



Showcase: chatbot



Windows Live™ Messenger



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## Bzz answers questions about alcohol, drugs and safe sex



Many young people are struggling with questions regarding sexuality, alcohol and drug use. They want to have the information, but they do not want to talk about it with their parents or the designated agencies, since it is a personal matter. SOA Aids Nederland and Trimbos-Instituut (two Dutch companies that provide answers to questions related to alcohol, drugs and (safe) sex) launched a chatbot that could answer these questions.

This chatbot is the first virtual agent in the world that informs its users about sex, alcohol and drug use. A chatbot is a virtual agent that can be added to a Windows Live Messenger (previously known as MSN) friendlist. Nowhere else in the world are young people informed about sex, alcohol and drugs through a chatbot. This is remarkable, especially when you consider that 86% of the Dutch youth spends an average of twelve hours per week on Windows Live Messenger. This makes the chatbot a well suited tool for SOA Aids and Trimbos-Instituut to reach their target group.

## SOAIDS and Trimbos-Instituut

Whenever someone has a question related to sexuality, they can contact SOA Aids Nederland. But if they want to know more about alcohol and drug use then they should contact Trimbos-Instituut. Both companies noticed that people between the ages of 13 till 16 hardly use the available resources such as the e-mail and telephone number if they want to have information regarding alcohol and drug use. Further research showed that many young people are afraid of being judged for their behaviour and therefore never inquire these resources. Most of these people use the web as their resource to search for the answers to their questions related to sex, alcohol and drug use. The problem is that since there is such an overload on information, it is hard for them to filter what they need.

Therefore, the two companies were searching for a solution that would ensure the anonymity of the younger people while, at the same time, provide reliable information. At a meeting of ZonMW, a company that maintains an overview of all the lifestyle campaigns in the Netherlands, both companies figured that they were both thinking of using a chatbot for this matter. This resulted in a successful cooperation.

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## Reliable answers

The goal was to develop a tool that would offer answers to questions regarding sex, alcohol and drug use. The main question was whether a chatbot would be a useful tool for health information. Worldwide, there are a few other non-commercial chatbots that focus on health issues, but they mainly serve as a FAQ list. Aside from these non-commercial chatbots, there are also some commercial health chatbots. These virtual agents are not developed enough, which, in turn, affects the quality and reliability.

To investigate whether people are willing to use a chatbot for health issues, SOA Aids Nederland and the Trimbos-Instituut created a test-bot. At the end of this test, the chatbot over 1000 users. This data convinced both organizations that a chatbot would be a well suited tool for the job. Upon receiving a grand award by ZonMW, the companies started to work on the development of Bzz. The name Bzz was chosen, because it has no reference to sex, alcohol or drugs.

## A last minute job

SOA Aids Nederland and Trimbos-Instituut contacted the company Ecreation, a chatbot developer, for the chatbots development.

*"We have spoken with a number of companies and we have tried many of their existing chatbots. There are many different ways of filling the chatbots database. For us, it was important that we could have direct access to this database, because that would make adjustment a lot easier. The platform that Ecreation offered us, allows us to access this database. We regularly had some last minute requests regarding adjustments to Bzzs design and database. Ecreation responded quickly and adjusted the requested changes right away. This resulted in a very pleasant cooperation."*

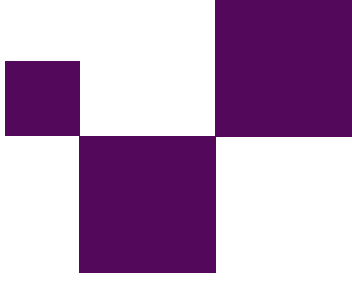
- Erwin Fisser of SOAIDS



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When Ecreation finished the technical part, the employees of SOA Aids Nederland and Trimbos-Instituut got a tutorial on how they could use and fill the chatbots database. After this tutorial, both companies started to fill the chatbots database with words, questions and answers to which they wanted the chatbot to respond to. In order to have some influence in the conversation, an importance-score has to be added to the keywords. These keywords are based on sentences that are often being used. If a user has a conversation with the chatbot, the chatbot searches through its database for the keywords that the user used in his sentence. Keywords with a higher importance-score will be triggered more often to certain word combinations than the keywords with a lower importance-score. By adding a higher importance-score to the most important and most common phrases, the user will experience a more realistic conversation.

## Survey among users



The chatbot went 'live' in January 2009. Within less than a year, over 52.000 users have added Bzz and they have send over 4 million messages all together. The average user is a female, 15 years old and she is usually in high school, or following an ROC-education (a Dutch college for higher education). The most frequently asked questions were related to sex. These questions were asked about nine times more often than questions about alcohol and drug use. Most of these questions were related on 'how to become better in bed'. When a user asked something related to sex, Bzz did not only show them a website on 'how to become better in bed', but he also informed them about condoms and its usage. This helps creating awareness about a sexual, and safe life, among youngsters. Questions about contraception and pregnancy were often asked as well.

A user-survey showed that 70% of the users think that Bzz shares correct and valuable information and 90% says that Bzz is an easy to use chatbot. This is stated in the fact that each user contacts Bzz about nine times a year.

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## Room for improvement

Although a majority of young people indicated that they benefit from the chatbot, research also showed that there is still room for improvement. Conversations between the user and the chatbot will become longer and more informative when Bzz can respond with a well suited answer. Therefore it is important that the database consists of several different answers. SOA Aids, for example, had more resources available for answers related to sex, while Trimbos-Instituut did not. This led to a lack of completion regarding answers about drugs and alcohol. This lack resulted in a reduces usage and usability of Bzz, because users didnt not get the answer they wanted.

## What's new?

If it is all up to Fisser, Bzz will be further extended. That is why SOA Aids Nederland and the Trimbos-Instituut have already submitted a request at ZonMW for another year of activity. Once that year has passed, it is up to both organizations to save up money for the chatbot. In the end, Bzz confirmed the fact that a chatbot is a successful solution for health education.



*"There is still one step to make, because we would like to have more information regarding on how to improve the usage of the database and its keywords. Apart from that, users indicated that they would like Bzz to talk about different kind of topics, such as smoking and dieting. This might change Bzz into a lifestyle bot what means that context provision will become even more important."*

- Erwin Fisser of SOAIDS

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# Summary

## Customers:

**SOAIDS**



## Chatbot website:

[www.chatmetBzz.nl](http://www.chatmetBzz.nl)

## Target group:

young people interested in topics of alcohol, drugs and sex

## Project startup:

January 2009

## Chatbot Developer:

Ecreation

## Amount of Bzz users - end of 2009:

51,000 users added Bzz to their list on Windows Live Messenger

## Key advantages:

- anonymous
- easy to use
- provides reliable information
- precisely reach the target group
- available 24 / 7

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