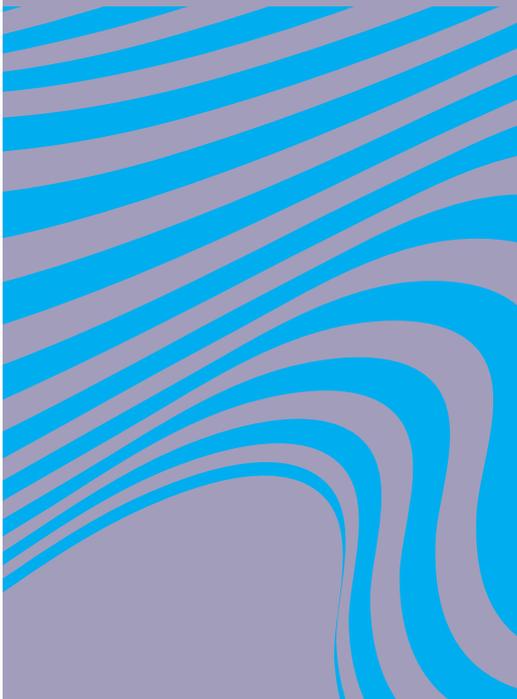


How can organizations know more on benzo use?



**Business
Intelligence**
*at the speed
of now*

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How can organizations know more on benzo use?

Introduction

Recently, YLE broadcast as national news an item on how the consumption of alcohol has changed in Finland due to the COVID-19 pandemic. In the opinion survey behind the news, people were given rough but direct options to tell if they had increased, decreased, or kept their alcohol consumption the same.

DrAI investigated a closely related theme focusing on other controlled and much used substances in Finland: Benzodiazepines. We wanted to see how people talk and feel about benzodiazepines and their consumption.

DrAI's team joined forces with a medical doctor Johannes Arvela to find out how to get the best understanding of the use of benzodiazepines. It was clear that the discussions in health clinics would be not only hard to reach but also biased. Instead, we were able to spot a discussion board on addictionlink.fi - Finland's most popular drug and addiction online service – to find out what people talk about the use of drugs.

Helsinki 16.5.2020

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What we did

We scraped a massive amount (nearly 3000 individual comments) of textual content from Päihdelinkki.fi chat room Sauna. Over 400,000 Finns read Päihdelinkki.fi every year.

Our focus was concerns of people relating to CNS drugs and benzos.

We wanted to know how people talk, think and feel about these drugs in patterns.

In Finland multiple controlled substances e.g. pregabalin Orion (Lyrica), Gabrion (gabapentiini), Opamox, Tenox, Diapam, Zopinox and Somnor are manufactured and consumed in massive amounts.

Our technical process

DrAI analysed nearly 3000 comments from Päihdelinkki chat room Sauna containing Finnish target words in relation to Finnish produced controlled substances (with the overall focus on “benzos”). We eliminated bots, retweets, and nonsense and proceeded with 2906 actionable comments.

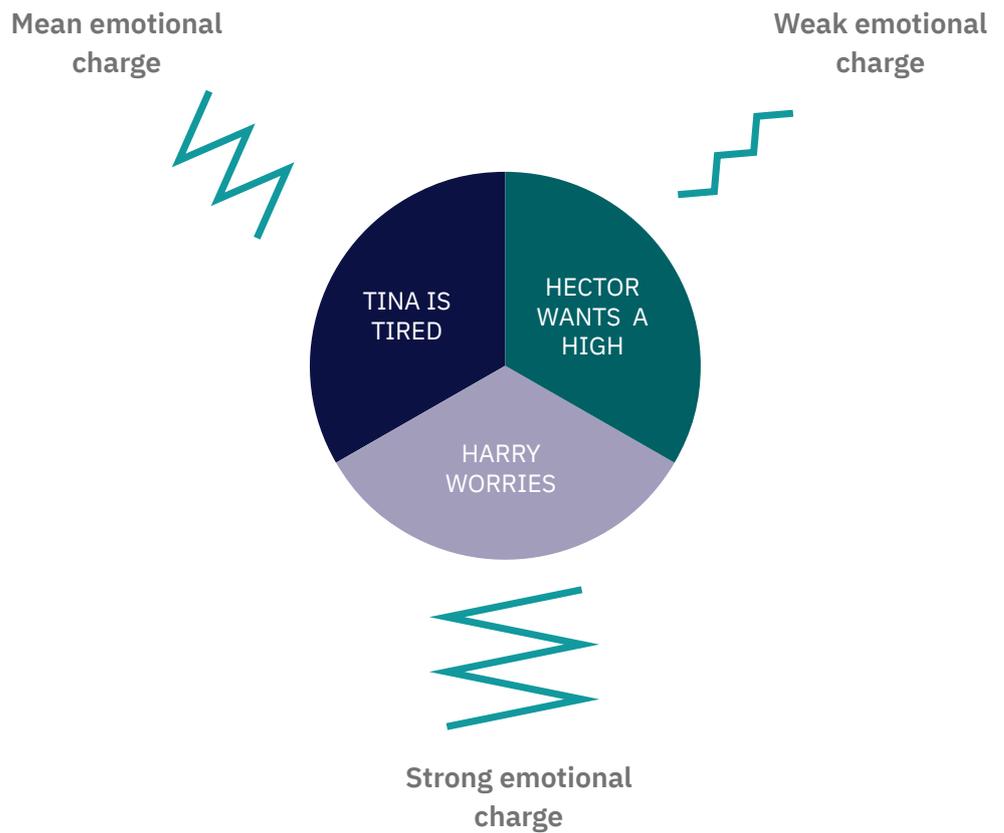
A custom-built thesaurus was used to create nicknames and synonyms for meds (e.g., ‘lääke’, ‘lyrica’, ‘nukahtamislääke’, ‘pami’, ‘nappi’, ‘troppi’, ‘pilleri’, and the like). In addition, we custom-built a thesaurus to focus on sentiments related to the use of these central nervous system drugs and related worries.

DrAI’s algorithm can recognize what people are truly worried about regarding these important, yet often abused, medicines.

We bring results at the level of 99% statistical accuracy.

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Three major topical groups emerged from our analysis



After data cleansing, translation, and analysis, we uncovered three primary concerns which we call “category topics.”

What are the TRUE concerns and thinking patterns found in groups?



Tina is tired

In this group people express their worries that relate to getting through the day. True concerns are being alert enough for work and families. A typical concern goes: "Am I getting enough sleep with these meds?"



Harry worries

Here we see socially oriented thinkers who worry about other people's view on them – as they feel embarrassed of they need to use CNS drugs and benzos as medical aids. The emotional load is very high in this group, reflecting the worry of social stigma.

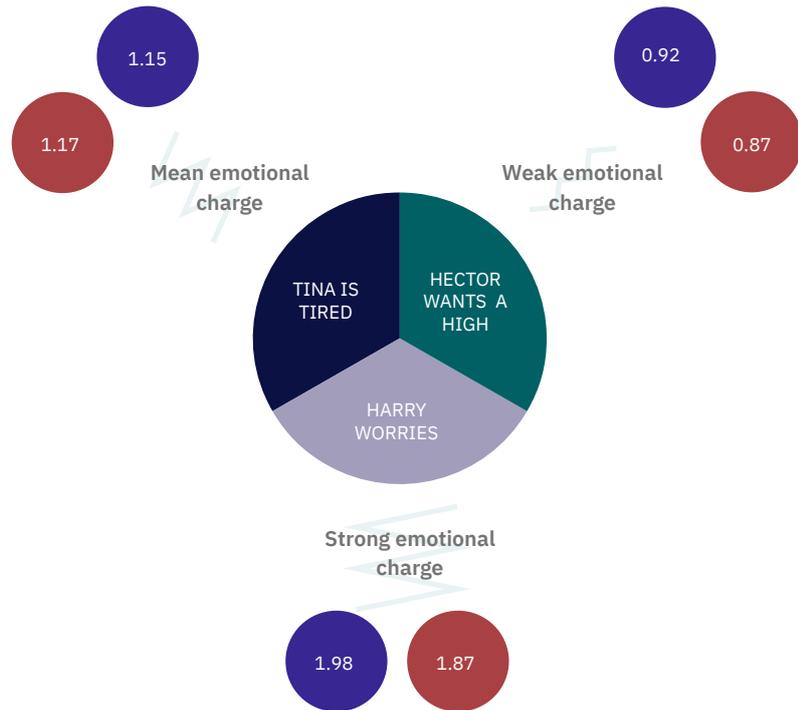


Hector wants a high

This category of people includes those who are most likely to abuse CNS meds and benzos. The emotional valence in this group is low and interest is in finding the right "state" and feeling through the more recreational use of drugs.

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What are the FEELINGS that accompany the thinking patterns found in groups?



- Positive feelings (mean score)
- Negative feelings (mean score)

We analyzed 2906 actionable comments from Päihdelinkki ´s chat room Sauna.

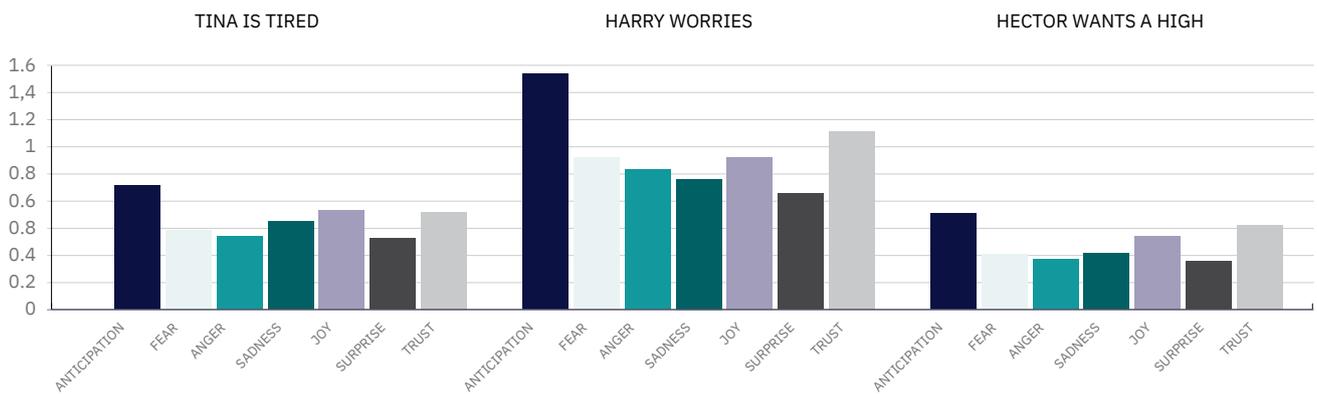
A custom-built thesaurus was used to create nicknames and synonyms for meds. We focused on the sentiments related to the use of these central nervous system drugs and related worries.

DrAI’s algorithm can recognize how people divide into just three groups with their concerns related to these important, yet often abused, medicines.

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What are the TRUE feelings found typically in the groups?

In the group “Harry worries” we see the greatest amount of fear and other emotions. “Tina is tired” group falls emotionally in the middle. The lowest emotional valence is seen in the group “Hector wants a high.” In this group the tips for recreational drug use are discussed in a rational, not emotional, manner.

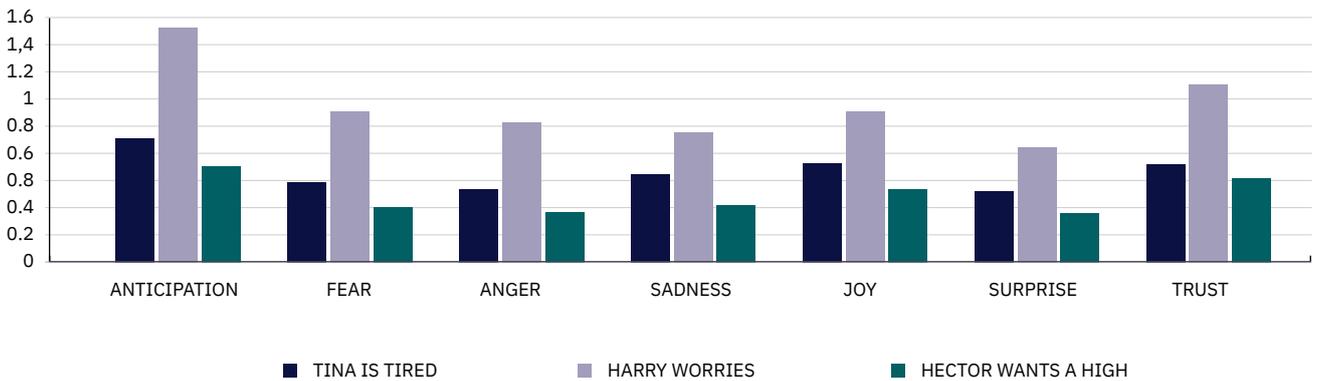


	TINA IS TIRED MEAN SCORE	HARRY WORRIES MEAN SCORE	HECTOR WANTS A HIGH MEAN SCORE	
ANTICIPATION	.76	1.44	.59	***
FEAR	.49	.93	.34	***
ANGER	.45	.86	.31	***
SADNESS	.54	.80	.35	***
JOY	.61	.93	.45	***
SURPRISE	.44	.71	.30	***
TRUST	.60	1.09	.52	***
<hr/>				
NEGATIVE	1.17	1.87	.87	***
POSITIVE	1.15	1.98	.92	***

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Sentiments: What are the TRUE feelings found typically in the groups?

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Example: Translating concerns into message management



Tina is tired

Facts that reassure individuals that they are not alone

Individual stories about availability of support, reassuring individuals they are in good hands



Harry worries

Communicate more effectively about the possibilities to get peer support. E.g. peer groups via A-klinikkasäätiö?

Describe commitments by the medical community to keep people informed about the necessity and importance of CNS drugs when used appropriately



Hector wants a high

This group is least likely to respond to emotionally driven communication. They seek minimal disruption to system which they already know and like

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Know at the speed of *now*

If we've learned anything from the global pandemic, it is this:

Organizations must do a better job understanding public sentiment as it is being formed.

DrAI uses advanced intelligence to dissect audience sentiment into topics that organizations can use immediately to shape their responses and take action.

Our methodologies are superior to current approaches because we eliminate human biases and personal agendas. We work in real time.

Our capabilities are available on a project basis or by subscription.

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DrAI leadership



Dr. Miika Vähämaa, CEO, has a background in academic research and holds a Ph.D. in social psychology from the University of Helsinki. As Research Director and CEO, Miika's experience in advanced textual analysis techniques and statistical analysis helps to bring DrAI clients to their goals. Prior to DrAI, Miika has worked as a business consultant, journalist and university lecturer.



Dr. Mark D. West, Chief Scientist, has a background in academic research and holds a Ph.D. in communication research from the University of North Carolina, USA. As Chief Scientist, Mark's experience in advanced textual analysis techniques and statistical modeling helps to develop methods by which clients can come to deep understandings of market opportunities.



Dr. Valtteri Kaartemo, Head of Sales, has a background in academic research and holds a Ph.D. in international business from the Turku School of Economics, University of Turku, Finland. Valtteri has acted as a part-time entrepreneur for 10+ years, and has held various roles in several startups prior to joining DrAI.



M.D. Johannes Arvela is the consulting physician in the team. He is a specialising physician (in general practice) in the Helsinki metropolitan area.

Business Intelligence *at the speed of now*

Whitepaper
Spring 2020

Analyze massive amounts of text to gain the most accurate insight to drive fast business decisions. Backed by science, accelerated by cutting edge AI.

DrΔi

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