

# INTERNSHIP REPORT

## Analyzing Sense-making in Complex Societal Debates

A Qualitative Study Exploring the Process Through Which Views on Climate Change are Constructed

L.S.E. Augustijn

STUDENT NUMBER  
2544870

COMMISSIONING PARTY  
Athena institute

ECTS + COURSE CODE SPECIALIZATION  
30 EC, AM\_1185

DATE  
05/07/2019

VU SUPERVISOR  
Drs. V.G. Rerimassie  
Dr. J.F.H. Kupper  
T.F.L. Roedema, Msc

ATHENA SCIENCE SHOP

### **Colophon**

Title: Analyzing sense-making in Complex Societal Debates. A Qualitative Study Exploring the Process Through Which Views on Climate Change are Constructed

Key words: Science communication, Sense-making, RETHINK

Author: Lisa S.E. Augustijn

Commissioning organization: EU RETHINK consortium

On-site supervisor: T.F.L. Roedema

VU supervisor: Drs. V.G. Rerimassie & Dr. J.F.H. Kupper

February-June 2019

Course code: AM\_1162

This internship report was established in cooperation with the Athena Science Shop.

### **Athena Institute**

Faculty of Science

VU University Amsterdam

De Boelaan 1085

1081 HV Amsterdam

The Netherlands



## Summary

Concerns and beliefs in climate change vary greatly around the world, despite the global consensus in the scientific community about the causal relationship between human activities and climate change. The debate surrounding human-driven climate change takes place in the public, political and scientific spheres, which all influence and interact with each other. The complex relations between science, politics, media and the public and their quality are of importance for this debate as a constructive debate is at the basis of finding suitable solutions. Currently it is seen that scientific facts are more often under scrutiny in the public debate, which can be explained by two trends: digitalization and the blurring of boundaries between science and society.

Due to digitalization there is a large diversity of voices in the media, in which facts are increasingly used to support certain views and opinions. Facts are thereby becoming mixed with opinions. This makes it more difficult for the public to decide who to trust and gives rise to questions regarding trustworthiness, accuracy and reliability. In addition, science is more central to society. The boundaries between science and society have blurred. The public is speaking back to science, which has also resulted in increasing public scrutiny of scientific facts. Due to digitalization and the blurring of boundaries, scientific evidence is more often disregarded as 'just another opinion'.

For specific issues, such as climate change, trust in science varies significantly, which also includes the lack of trust, in other words mistrust. This can be attributed to the claims to certainty of scientist, the downplaying of uncertainty by politicians and mixing of opinions with facts in the media. Mistrust in science distorts the public opinion and further hinders a constructive societal debate. It is therefore important to better understand how people deal with uncertainty, claims to certainty and trust in understanding and making sense of science. Insights in this process of sense-making can further contribute to formulation of strategies to facilitate a constructive debate surrounding urgent societal issues, in which there is an important role for science communication.

This paper therefore turns to sense-making. A first step in researching this, in the context of complex societal debates, is to identify suitable ways of describing and approaching the phenomenon. In the present paper, sense-making is approached by adopting the sense-making framework of Brenda Dervin, thereby exploring the usefulness of this framework to provide insights in the sense-making practices of citizens regarding relevant and urgent societal issues using climate change as a case study.

The aim of this study is to contribute to understanding the societal debate regarding relevant and urgent societal issues in an increasingly fragmented science communication landscape. This is done by exploring the usefulness of the sense-making framework of Dervin for analyzing the sense-making processes of citizens in the societal debate surrounding climate change.

The sense-making framework of Dervin stems from a library sciences field, which mainly focusses on individuals trying to fill an information gap. For the purposes of this research, the framework is adjusted to a science and technology context, in which focus is put on the impacts and control of science and technology in society. Relevant data on the climate change debate was gathered by conducting four focus group discussions. The main aim of these focus groups was to generate data to enable analysis with Dervin's sense-making framework, instead of generating generalizable results.

From this study, two key messages can be derived. Firstly, analysis of four focus group discussions with the sense-making model showed that all concepts of the framework can be successfully linked together, revealing insightful 'ways of making sense' that are adopted in the societal debate surrounding climate change. These ways of making sense for example show why people rely on certain information sources rather than others and how the different concepts of the model, for example the

concept context, which illustrates their view on science, politics and world systems, influence sense-making. Secondly, ways of sense-making can give valuable insights into how this debate is currently taking place. Comparison of different ways of making sense and analyzing the dynamics of different 'ways of making sense' contribute to a better understanding of the societal debate surrounding climate change.

Adaptation of this framework to a science and technology setting is of added value, as studies in the science and technology field on climate change have mainly focused on what frames are present in societal debate, while the sense-making approach offers insights in which elements contribute to how citizens adopt this certain 'frame'. In the current changed media landscape, with increased scrutiny of scientific facts, understanding why people turn to certain sources and which elements are of importance for how people make sense is of added value as these insights in sense-making can contribute to the formulation of science communication strategies to facilitate a constructive societal debate.

In conclusion, this model can be a useful tool to better understand occurring ways of sense-making in societal debates. It gives valuable information on what components play a role in why someone arrives at a certain point of view and which elements therein, taking into account situational and contextual aspects, are of importance. In addition, it offers a valuable tool to compare and study the dynamics between the different ways of sense-making occurring in the societal debate. This will further contribute to a better understanding of how this societal debate is currently taking place and offers a possible starting point for the formulation of science communication strategies to facilitate a more constructive debate.

# Table of Contents

Preface .....	3
Summary .....	4
1. Introduction .....	8
1.1. Aim .....	11
1.2. Research question .....	11
2. Contextual and theoretical background .....	12
2.1. Project RETHINK science communication .....	12
2.2. Blurring of boundaries between science and society .....	13
2.3. Digitalization and the new media landscape .....	13
2.4. Reflexivity in science communication .....	14
2.5. Sense-making practices .....	15
3. Conceptual framework .....	17
3.1. Concepts .....	18
3.2. Research questions .....	20
4. Methods .....	22
4.1. Study design .....	22
4.2. Study population .....	22
4.3. Data collection instrument .....	23
4.4. Data analysis .....	23
4.5. Validity and reliability .....	24
4.6. Ethical considerations .....	24
5. Results .....	25
5.1. Framework use in analysis .....	25
5.2. Construction of ways of making-sense of climate change .....	28
5.3. Analyzing the dynamics of ways of making-sense in the societal debate .....	30
5.4. Summary of findings .....	34
6. Discussion .....	36
6.1. Dervin's sense-making framework for analysis .....	36
6.2. 'Ways of sense-making' for understanding the societal debate .....	36
6.3. Limitations .....	37
6.4. Implications .....	38
7. Conclusion .....	40
8. References .....	41
Appendix 1 .....	44
Focus group design .....	44
Appendix 2 .....	48

Coding tree.....	48
Appendix 3 .....	51
Thematic analysis in excel.....	51
Appendix 4 .....	52
An extensive description of the 'questioning' way of making sense .....	52
Appendix 5 .....	59
Six ways of making sense .....	59