

Explaining Accelerated Sea Level Rise for the Netherlands through Animated Video

Jenesis Cochrane, Rebekah Lee, and Justine Seo

Research Advisor: Simon Richter

Contact Information: jenesisc@sas.upenn.edu, beckyree@sas.upenn.edu, juseo@sas.upenn.edu, srichter@sas.upenn.edu

Preparation

Overall Goal: To create animated videos to inform both the Dutch public and the public at large about the difficult the impact of accelerated sea level rise on the Netherlands and to contribute to the public debate about the best adaptive approach.

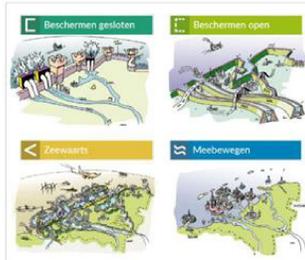
How do you create an animated video critiquing the very thing someone is famous for?

You get to know them first.

To put ourselves in the appropriate mindset to start the video we had to familiarize ourselves with the Dutch Climate situation. What are the climate related issues that the Dutch are currently facing? How does the Dutch government perceive and address these issues? How involved in the climate conversation are the Dutch public?

Our team:

1. Got to know our research advisor by understanding his perspective on the Dutch Climate situation, especially as an outsider looking in. Furthermore, our team familiarized ourselves with Professor Richter's lectures and proposals surrounding Dutch Climate Futures.
2. Read three main articles that set the stage for our understanding of the Dutch climate situation. They are:
 - Haasnoot, Marjolijn, et al. "Adaptation to uncertain sea-level rise; how uncertainty in Antarctic mass-loss impacts the coastal adaptation strategy of the Netherlands." Environmental Research Letters.
 - Blurb:** Uncertainties in sea level rise makes coastal adaptation difficult for the Dutch government. The uncertainties stem from possible ice mass loss from the Antarctica.
 - Oomen, Jeroen, et al. "Techniques of futuring: On how imagined futures become socially performative." European Journal of Social Theory.
 - Blurb:** This article discusses the social processes and practices that allow imagined futures to become socially performative.
 - Haasnoot, Marjolijn, et al. "Dynamic Adaptive Policy Pathways (DAPP)"
 - Blurb:** This article explains Dynamic Adaptive Policy Pathways (DAPP), which, in short, is an adaptive planning approach that allows for flexibility in decision making through multiple future options and alternative pathways.
3. Studied a variety of animated videos from YouTube channels such as "Ted-Ed" and "Kurzgesagt - In a Nutshell" to identify the main characteristics of an effective explainer (animated) video.
4. Examined an image created by the Deltares Institute (a Dutch government organization) illustrating four approaches for the Dutch to respond to accelerated sea level rise. The image was also used as an inspiration for our video.



Process and Interviews

•We met with Dutch individuals working on both the design of the water management systems and those who work on the communication of adaptation solutions. We received feedback on video progress and were given first-hand insight into the Dutch situation and advice on how to successfully communicate in our videos.

People

•Marjolijn Haasnoot

Marjolijn is an environmental scientist who created the Del Tares images that outline possible solutions to sea-level rise. She explained her Dynamic Adaptive Policy Pathways approach, a water management system that flexibly responds to changes in the environment and gave us a look into the current work climate change scientists are working on.



•Maarten Verkek

Maarten is a climate adaptation advisor. He is an expert in water management and has been working with Professor Richter on the design of a Dutch-German Transboundary Region as a response to rising sea levels.



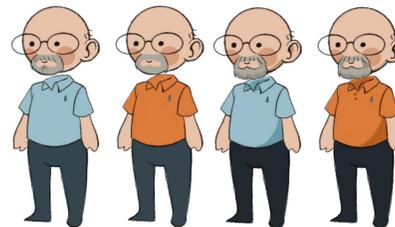
•Patrick Nederkoorn

Patrick is a stand-up comedian who is currently working on a routine related to the Dutch response to climate change and possible adaptation solutions. He gave insight into how to connect with audiences and the Dutch public's reaction to water management related discussion.



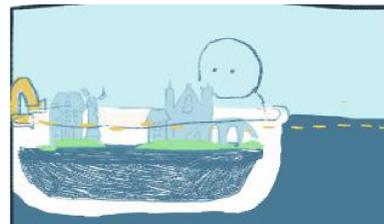
Video Process

- From the initial plan to make an educational video on the Dutch situation we developed the persona of "Poldergeist" as a medium to communicate issues related to the Netherlands.

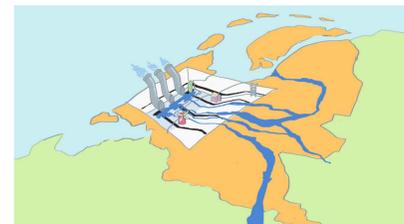


Character Development for Poldergeist

- For our first video, we decided to discuss the widespread uncertainty around the exact amount of the Netherlands that was below sea level, designing a visually comprehensive representation of the country.



Initial "Bathtub" Metaphor



Early version of "Swimming Pool" Metaphor

Video's Purpose

• Establish an Explainer Video Series

- Present reliable information on a PRESSING ISSUE in video format
- First Video: How Much of the Netherlands is Under Sea Level?
- Potential Future Videos
- Graphic Representation of Research
- Features of Professionals in the Field

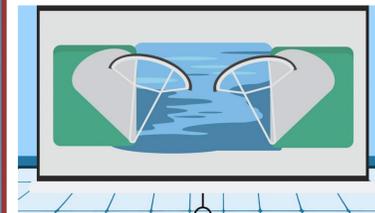


Illustration of one of the Netherlands' most iconic storm surge barriers



Transition image to introduce theories of the Dutch reaction to sea level rise

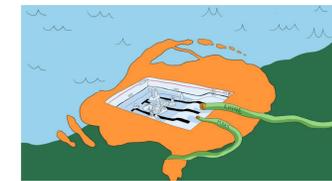


Illustration of visual metaphor of how much of the Netherlands is under sea level

• Introduce a Unique Perspective

- Poldergeist is the alter-ego of Professor Simon Richter
- An informed outsider on the complex situation in the Netherlands
- Communicates with many professionals and gives talks on this issue
- Positive reception to interesting takes made from foreigner about other country



Professor Simon Richter



Professor Simon Richter's alter-ego, Poldergeist

• Make Information More Accessible

- Increased audience
 - Video to be released on Youtube
 - Audio in English
 - Closed Captions in Dutch
- Bright color palette in a graphic style
- Videos aim to be at or less than 5 min