

## KEYNOTE

### The Digital Data Divide: Using Speculative Fiction to Facilitate Public Dialogue on the Increased Use of Personal Data

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#### Background

In today's interconnected world, personal data generation and collection are growing exponentially. Increasingly, data from multiple sources, ranging from vital signs to environmental and lifestyle information, are combined to create detailed personal profiles (Brunning et al., 2023). While this enables more personalized care, it also raises questions about privacy, data reliability, ownership, and the desirability of collecting such data.

To foster dialogue on these issues with a broad audience in an engaging and accessible way, the festival experience *The Digital Data Divide* ([www.thedigitaldatadivide.nl](http://www.thedigitaldatadivide.nl)) was developed (Groeneveld et al., 2024). This interactive experience draws on the concept of narrative learning, an approach that uses stories and dialogue to help individuals interpret and understand the world around them (Elsden et al., 2017). When applied as speculative fiction, narrative learning is especially effective for exploring potential future scenarios. By embedding these scenarios within a story, it encourages participants to critically examine and question their present viewpoints (Haste and Abrahams, 2008). *The Digital Data Divide* premiered at the Zwarte Cross Festival in the Netherlands in 2023 and has since been featured at various festivals, events, congresses, as well as in educational and healthcare settings and won the E<sup>3</sup>UDRES<sup>2</sup> Innovative Science Outreach Award in May 2025.

#### Methods

The concept was co-created with a diverse group of stakeholders, including professionals from healthcare, gaming, ethics, education, design, as well as students. This collaborative process generated two future focused storylines (one dystopian, one utopian) which were developed with a professional scriptwriter, actors, a composer, and videographers into two short films (trailer: <https://youtu.be/SAZAgA2zeRM>). During the experience, participants select either a red or blue pill to determine which scenario they will view. After watching their chosen film, they are matched with individuals who saw the alternative scenario and take part in a guided discussion supported by dialogue cards.

Evaluation was conducted over one year at diverse public venues. Data collection used a flyer suited to informal environments: participants provided demographics (gender, age, education level) and indicated agreement with statements on a visual analog scale. Open comment fields invited qualitative feedback.

## Results

A total of 758 participants took part (47% male, 51% female, 2% other/prefer not to say), with an average age of 34 years (SD = 12). Educational backgrounds were varied: 22% vocational, 42% applied sciences, 35% academic, <1% PhD.

Awareness of the effect of personal data use on the individual increased after participation (pre: M = 48, SD = 18; post: M = 50, SD = 16;  $p = 0.004$ ). Awareness of its effect on society also increased (pre: M = 47, SD = 19; post: M = 51, SD = 17;  $p < 0.001$ ).

Qualitative analysis identified three main themes:

Concept – Participants valued the contrasting perspectives and the rejoining of viewpoints in dialogue; some requested clearer facilitation and more time for discussion.

Effect – Many described the tool as thought-provoking and a stimulus for reflection; some wished for more factual context about current real-world situations.

Content – Participants found the scenarios impactful and sometimes confronting; others were skeptical about their likelihood.

## Conclusion

*The Digital Data Divide* shows that future-focused scenarios, created through narrative learning and speculative fiction, can effectively spark dialogue on emerging technological and ethical challenges. Combined with structured discussion, they promote critical reflection and multiple perspectives, offering value for a wide range of societal issues. This work highlights speculative fiction as a valuable tool for meaningful dialogue on the societal and ethical implications of new technologies.

## References

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## Keywords

data, AI, society, technology, speculative fiction, festivals