Spreading our stories: Others' personal narratives change our own
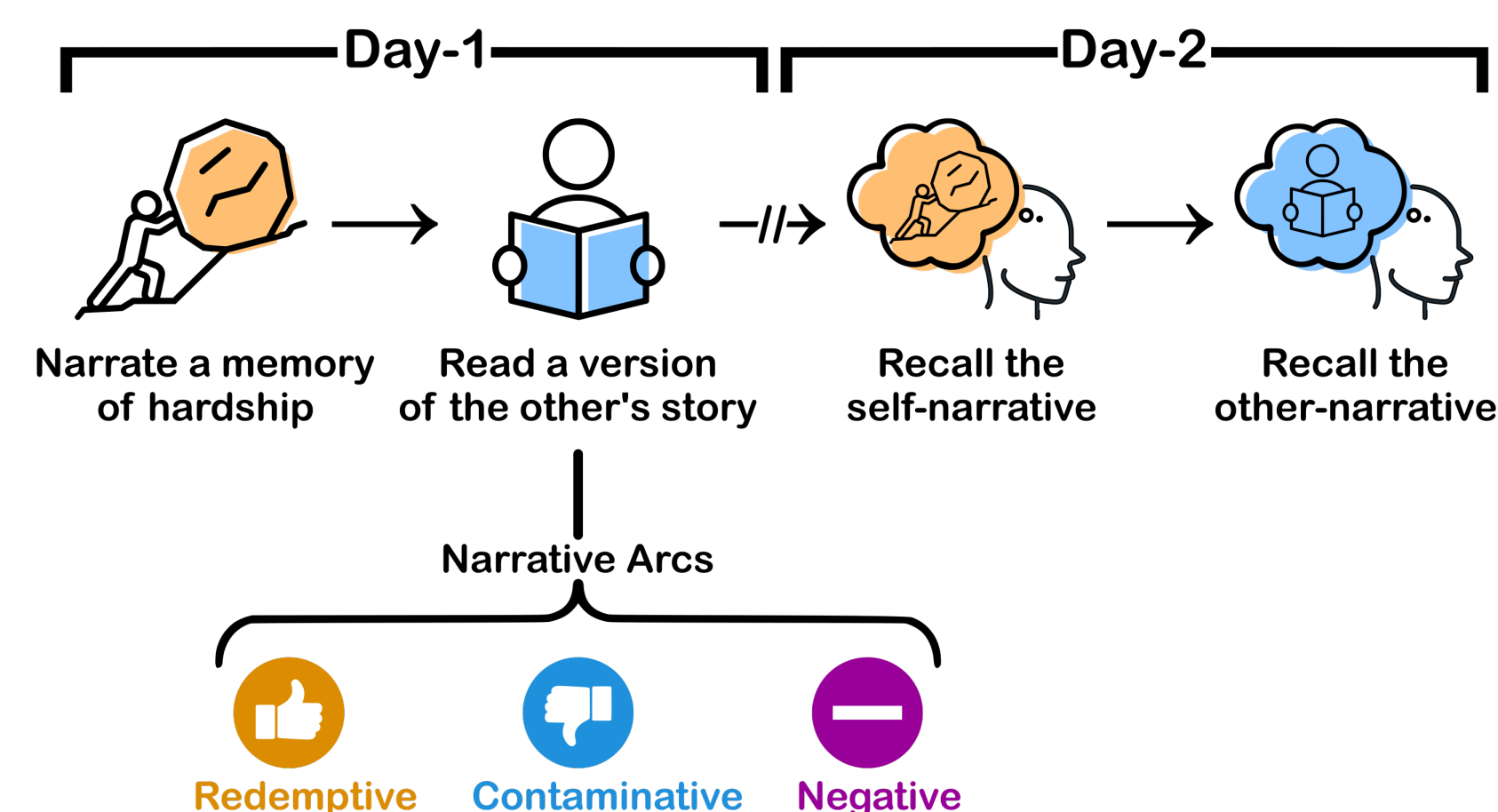
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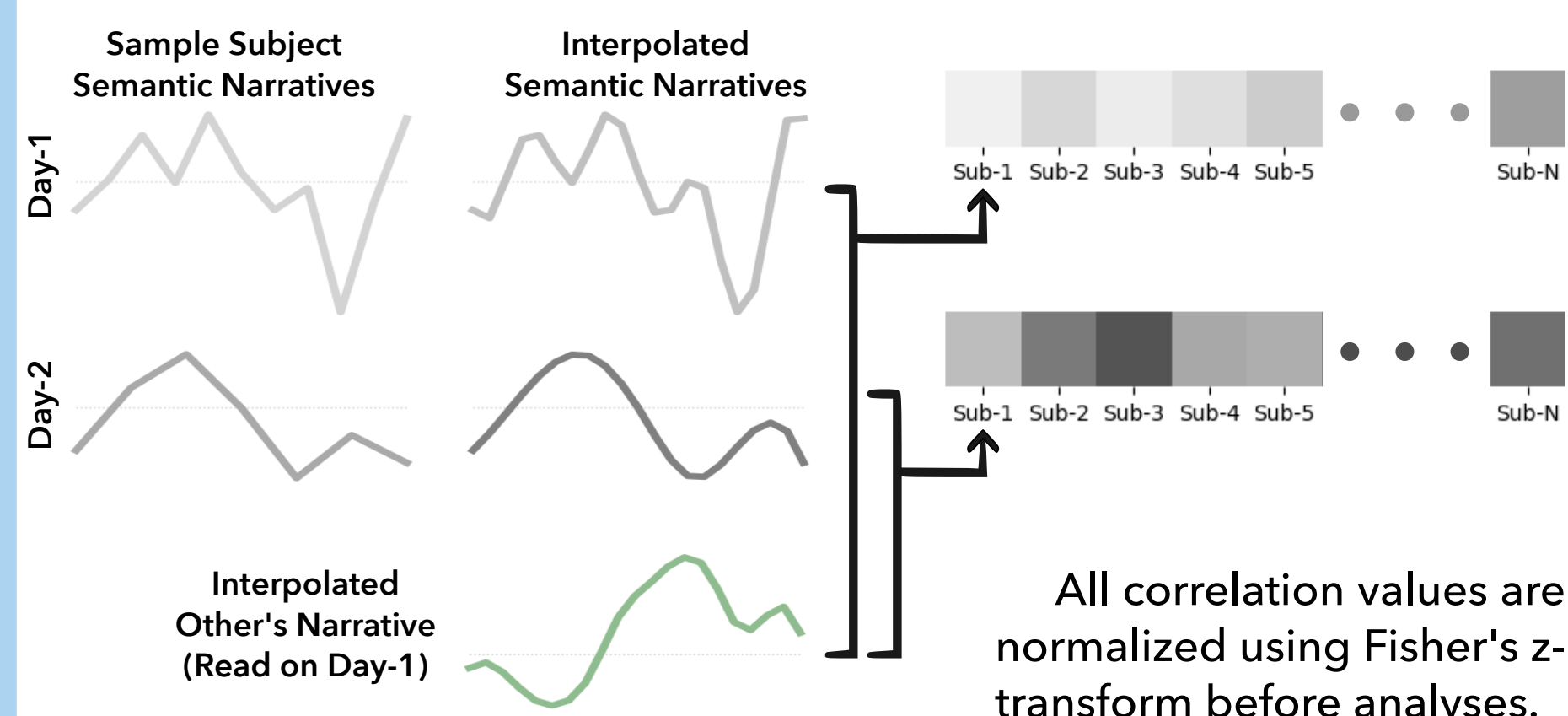[1] Department of Psychology, Columbia University

Introduction

Stories are a prominent form of human expression. How stories are shared or received include perceptions of the communicator [1], listener [2], and the story itself [3,4]. Here, we find that encoding others' stories changes how we communicate our own [5]. Furthermore, different structures of others' narrative interact with the affect of our own personal stories, exhibiting changes across the emotional tones and arcs differently in how the personal narrative begins, is expressed in the middle, and ends.
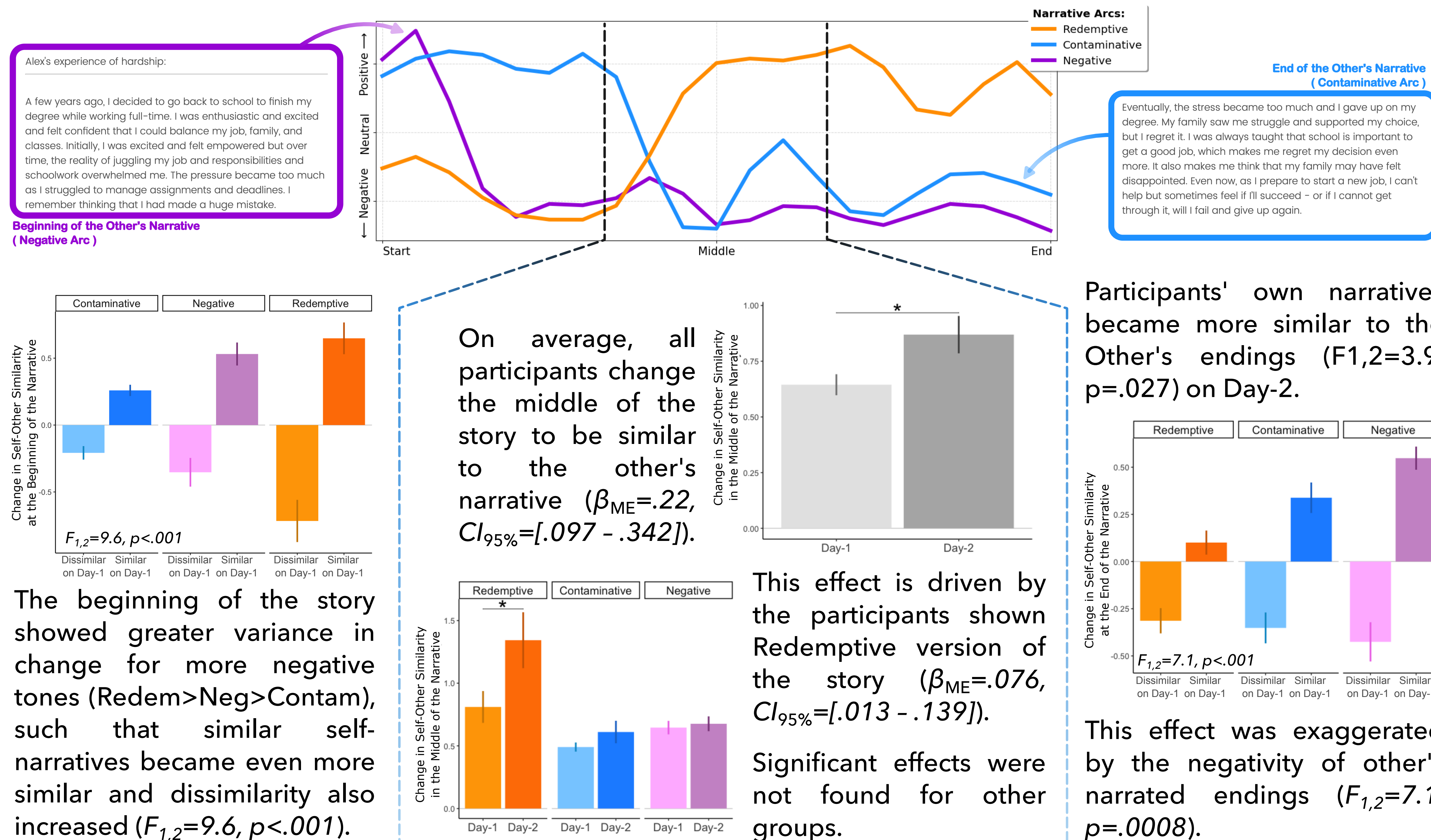
Methods

Day-1 → Narrate a memory of hardship → Read a version of the other's story → **Day-2** → Recall the self-narrative → Recall the other-narrative

Narrative Arcs
Redemptive | Contaminative | Negative

We used NLTK to extract sentence-wise semantics from the participants' narratives and obtained the Spearman correlation of these pairs of semantic vectors with the Other's story.


Sample Subject Semantic Narratives | Interpolated Semantic Narratives
Day-1 | Day-2 | Interpolated Other's Narrative (Read on Day-1)

All correlation values are normalized using Fisher's z-transform before analyses.

Results

Narrative Arcs:
Redemptive | Contaminative | Negative

Alex's experience of hardship:

A few years ago, I decided to go back to school to finish my degree while working full-time. I was enthusiastic and excited and felt confident that I could balance my job, family, and classes. Initially, I was excited and felt empowered but over time, the reality of juggling my job and responsibilities and schoolwork overwhelmed me. The pressure became too much as I struggled to manage assignments and deadlines. I remember thinking that I had made a huge mistake.

Beginning of the Other's Narrative (Negative Arc)

End of the Other's Narrative (Contaminative Arc)

Eventually, the stress became too much and I gave up on my degree. My family saw me struggle and supported my choice, but I regret it. I was always taught that school is important to get a good job, which makes me regret my decision even more. It also makes me think that my family may have felt disappointed. Even now, as I prepare to start a new job, I can't help but sometimes feel if I'll succeed – or if I cannot get through it, will I fail and give up again.

The beginning of the story showed greater variance in change for more negative tones (Redem>Neg>Contam), such that similar self-narratives became even more similar and dissimilarity also increased ($F_{1,2}=9.6$, $p<.001$).

On average, all participants change the middle of the story to be similar to the other's narrative ($\beta_{ME}=.22$, $CI_{95\%}=[.097 – .342]$).

This effect is driven by the participants shown Redemptive version of the story ($\beta_{ME}=.076$, $CI_{95\%}=[.013 – .139]$).

Significant effects were not found for other groups.

Participants' own narratives became more similar to the Other's endings ($F_{1,2}=3.9$, $p=.027$) on Day-2.

This effect was exaggerated by the negativity of other's narrated endings ($F_{1,2}=7.1$, $p=.0008$).

References

[1] Zadbood et al., 2022 (*eLife*); DOI:10.7554/eLife.79045

[2] Meyer, Zhao, & Tamir, 2019 (*Journal of Experimental Psychology*) DOI:10.1037/xge0000565

[3] McAdams & Jones, 2017 (*Academic Press*) DOI:10.1016/B978-0-12-803015-8.00001-2

[4] Speer, et al., 2021 (*Nature Communications*) DOI: 10.1038/s41467-021-26906-4

[5] Fivush, Habermas, & Reese, 2019 (Qualitative Psychology) DOI: 10.1037/qup0000150

Relevant Information

Materials repository
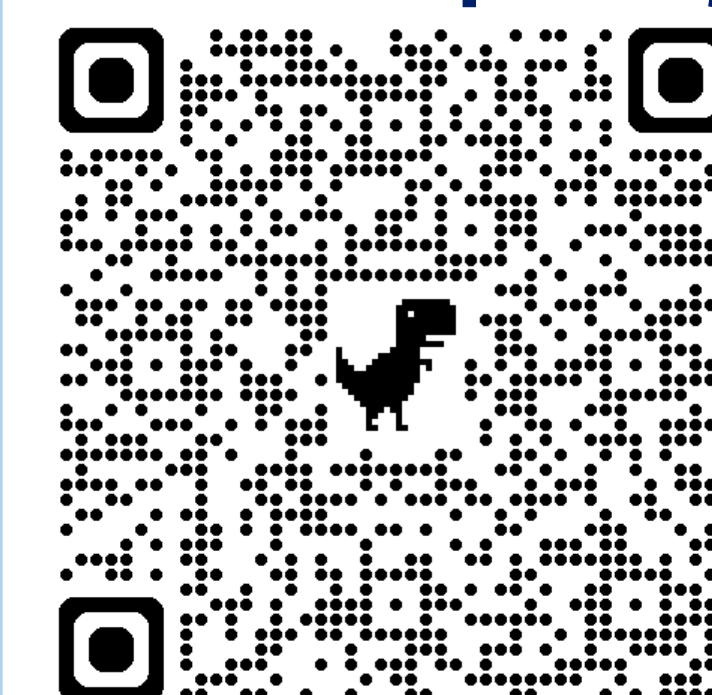
Electronic Poster:

We have made a *Project GitHub repository (left)* containing our materials, designs and the current version of the *conference poster (right)*.

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