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Zürcher Hochschule der Künste Zürcher Fachhochschule

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## Vertiefungsmodul Interdisziplinär VIAD - Synthetic Normal

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Angebot für

Bisheriges Studienmodell > Design > Bachelor Design > Design interdisziplinär > 3. Semester

Nummer und Typ BDE-VIAD-V-I-3333.06.22H.001 / Moduldurchführung

Modul Vertiefungsmodul Interdisziplinär VIAD - Synthetic Normal

Veranstalter Departement Design

Leitung Paulina Zybinska

Yann Martins

Zeit Di 6. Dezember 2022 bis Fr 23. Dezember 2022 / 8:30 - 17 Uhr

Anzahl Teilnehmende 8 - 18

ECTS 4 Credits

Voraussetzungen Willingness to work actively and self-motivated on projects

Interest in new technologies

At least some programming knowledge

Lehrform Class sessions include lectures, discussions, mentoring sessions, in-class

presentations, assignments, independent study/investigation blocks and

independent practical work on prototypes and final works.

Projects are conducted in teams.

Zielgruppen Wahlpflichtmodul Bachelor Design, 3. Semester

Lernziele / Kompetenzen During the course we would like to explore a different approach to counter disobedient AI that revolves around the creation of the "Synthetic Normal". The goal is to use Machine Learning (ML) algorithms to create fake user profiles (bots) which match the criteria of "normalcy" i.e. based on the user data the system will have the ability to average the "out of the norm" qualities. During the course we will investigate the way social media platforms track users' posts, interactions with others, I/O devices, etc. by looking at debugging tools, web plugins and

customised ML models.

In the wake of the current landscape of corporate-based Artificial Intelligence (AI)

systems, a growing number of artists, academics, designers, and computer scientists have started to question the use of this technology. Technically described by Joy Buolamwini and further discussed by Ruha Benjamin, Al has

lately become synonymous with racial biases.

To counter that Data Poisoning is used to inject crafted data and explore the ways

by which AI systems could be hacked. The most notable example of data

poisoning were "One pixel attacks" which were able to craft images where a single pixel could throw off most of image recognition AI softwares back in 2018. This and other techniques have been further applied to social media platforms as a way to obfuscate users' advertisable traits. While such forms of algorithmic defence might have been successful at first, companies behind the platforms keep on finding ways to mitigate such attacks. Furthermore, poisoned data has a drawback: data streams that are patternized become highly entropic, therefore asking for further

analysis.

Bibliographie / Literature and links will be provided during the course and on the Paul Page (link

Literatur to be updated).

Leistungsnachweis

Active and regular participation (min. 80% attendance)

Project work

In-class assignments

presentations

Leistungsnachweis / Testatanforderung

Aktive und regelmäßige Teilnahme (min. 80% Anwesenheit), Projektarbeit, In-class

assignments, Präsentationen

Termine 06. - 23. Dezember 2022 (ohne Montage)

Dauer 3 Wochen

Bewertungsform Noten von A - F

Bemerkung The course is conducted in collaboration with Yann Patrick Martins, doctoral

candidate of the Make/Sende Phd programme working at the Institute Experimental Design and Media Cultures (IXDM) as Researcher.

Der Kurs wird in Englisch unterrichtet. Es kann Deutsch gesprochen werden, es

sollte aber Englisch verstanden werden.