Vanessa Barbara Utz

Cognitive Scientist, M.Sc.

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EDUCATION

Ph.D. Interactive Arts & Technology
Fall 2019 - present
School of Interactive Arts & Technology
Simon Fraser University (SFU)

M.Sc. Brain & Cognitive Sciences
(cum Laude)
Fall 2017 - Summer 2019
Institute for Interdisciplinary Studies
Univerisity of Amsterdam (UvA)

B.A. Cognitive Science
(with Distinction)
Fall 2012 - Summer 2017
Faculty of Arts & Social Sciences
Simon Fraser University (SFU)

KEY EXPERTISE

INTERDISCIPLINARY RESEARCH METHODS

QUALITATIVE & QUANITATIVE METHODS + DATA ANALYSIS

ACADEMIC WRITING + TEACHING

PROJECT MANAGEMENT + CROSS CULTURAL COMMUNICATION

LANGUAGES

German
Native Speaker

English
Native Speaker/Bilingual Proficiency

Urdu
Elementary/Basic Proficiency

INTRO

I'm a cognitive scientist (MSc) currently working in a lab conducting research on HCI, VR and AI. I have several years of experience conducting interdisciplinary research using both quanitative and qulitative methods. My research area began with a focus on visual information processing in the brain and has since shifted to focus on transforming creative AI systems. My PhD research is focused on developing a novel framework that integrates various disciplinary insights around human creative behaviours to allow for autonmous live output evalutation in creative AI.

INTERNATIONAL EXPERIENCE

Germany (1993-2005 & 2010-2012) · **China** (2005-2009)
Singapore (2009-2010) · **The Netherlands** (2017-2018)
Canada (2012-2017 & 2018-present)

EXPERIENCE

┌─ **Present** ─

LABORATORY MANAGER
SFU's iViz lab (Location: Surrey Campus)
May 2021 - present
Responsibilities:
· ensuring the smooth & efficient transition from remote to in-person work after the Covid19 pandemic (e.g. ensuring access to lab equipment)
· implementation of new intra-laboratory communication tools
· design of new lab website (currently in progress)
· securing government funding (identifying funding opportunities and overseeing/aiding in the writing of grant applications)

GRADUATE TEACHING ASSISTANT
Simon Fraser University
January 2020 - present
Responsibilities:
Courses: COGS100 - Exploring the Mind & IAT309W - Writing Methods for Research
Experience with remote & in-person classes (20-100 students)
· providing administrative support to instructors
· assessing student work (quizzes, short assignments and research papers)
· running workshops/tutorials & taking over lecturing duties as needed

DOCTORAL RESEARCHER
Simon Fraser University
September 2019 - present
My thesis work involves Artificial Intelligence research centered around computational creativity. The work is aiming to implement autonomous evaluation techniques of output that occur live throughout the creation process. For this purpose a novel interdisciplinary framework is being developed that leverages insights from cognitive science and evolutionary psychology.

TECH. SKILLS

Python
★ ★ ★ ☆ ☆

SPSS + JMP
★ ★ ★ ☆ ☆

Prolific
★ ★ ★ ★ ☆

MatLab
★ ★ ★ ★ ☆

Adobe Creative Suite
★ ★ ★ ★ ☆

Microsoft Office Suite
★ ★ ★ ★ ★

RECENT AWARDS

2022
Backwater Industries/Eduard Jost Sr. & Jr. Graduate Scholarship
SFU - Donor Award

Century 21 Charlwood Family Graduate Scholarship
SFU - Donor Award

2021
Graduate Fellowship
SFU - Departmental Award

Travel & Research Award (2x)
SFU - Departmental Award

2020
Graduate Fellowship
SFU - Departmental Award

2019
Graduate Dean's Entrance Scholarship (4 Year Funding)
SFU - Graduate & Post-Doctoral Studies

Most Innovative Research Award
BICA Society (@ BICA2019 Conference)

EXPERIENCE CONT.

VISITING GRADUATE RESEARCHER
Simon Fraser University
September 2018 - August 2019
Project: Using an AI creativity system to explore how aesthetic experiences are processed along the brain's perceptual neural pathways
Results published in *Cognitve Systems Research*

RESEARCH INTERN
Univeristy of Amsterdam
January 2018 - July 2018
Project: Unconscious semantic priming from pictures under backward masking and continuous flash suppression
Results published in *Consciousness & Cognition*

CURRENT PROJECTS

PROJECT 1:
WORKING TITLE: Face anonymization using stylized AI-techniques
COLLABORATORS: Ozge Nilay Yalcin (Post-Doc) & Steve DiPaola (PI)

PROJECT 2:
WORKING TITLE: Adapting the mirror model art for computational creativity systems
COLLABORATOR: Steve DiPaola (PI)

PROJECT 3:
WORKING TITLE: Space Exploration - Novel application spaces for creative AI
COLLABORATOR: Steve DiPaola (PI)

SELECTED PUBLICATIONS

Utz, V. & DiPaola, S. (2021). Exploring the Application of AI-generated Artworks for the Study of Aesthetic Processing. Proceedings of the IEEE Fourth international Conference on Multimedia Information Processing and Retrieval (MIPR2021), pp.393-398 [Conference Paper]

Utz, V. & DiPaola, S. (2020). Using an AI creativity system to explore how aesthetic experiences are processed along the brain's perceptual neural pathways. Cognitive Systems Research, 59, pp.63-72 [Journal Paper]

Stein, T., Utz, V. & van Opstal, F. (2020). Unconscious semantic priming from pictures under backward masking and continuous flash suppression. Consciousness & Cognition, 78: 102864 [Journal Paper]

GRANT WRITING

Primary author on the following government grant applications (Principal Investigator: Steve DiPaola):

SSHRC New Frontiers: Autonomous iterative evaluation using aesthetic principles: A new approach to computational creativity evaluation [NFRFE-redacted] (*Under Review*)

NSERC Discovery New Horizons: Using cognitive theories to drive an Deep Learning AI art style system for health and safety [DH-redacted] (*Under Review*)