

様式 A-1  
(FY2023)

2023年 11月 20日

## サイエンス・ダイアログ 実施報告書

1. 学校名・実施責任者氏名: お茶の水女子大学附属高等学校 金子麻子
2. 講師氏名: Dr. Leslie Woehler
3. 講義補助者氏名: 熊谷はるか
4. 実施日時: 2023年 11月 15日(水) 15:15 ~ 16:45
5. 参加生徒: 1年生 11人、 2年生 2人、  
備考: (例:理数科の生徒) 希望者のみ
6. 講義題目: Investigating the Perceived Authenticity and Communicative Abilities of Face-Swapped Portrait Videos
7. 講義概要: Woehler 博士の研究者としてのキャリアパス、コンピューターサイエンスの分野における女性研究者の地位などを紹介後、ディープラーニングの技術を活用して生成された精巧な「顔面入れ替え動画」を、人間がどのくらい見破ることができるかを実験に基づき検証
8. 講義形式:  
対面 ・ オンライン (どちらか選択ください。)
  - 1) 講義時間 60 分 質疑応答時間 30 分
  - 2) 講義方法 (例:プロジェクター使用による講義、実験・実習の有無など)  
プロジェクター使用による講義
  - 3) 事前学習  
有 (どちらかに○をしてください。)  
使用教材 事前にお送りいただいた当日のPPT
9. その他特筆すべき事項:

Form B-2  
(FY2023)  
Must be typed

Date (日付)  
22/11/2023  
(Date/Month/Year: 日/月/年)

**Activity Report -Science Dialogue Program-**  
(サイエンス・ダイアログ事業 実施報告書)

- Fellow's name (講師氏名): Leslie Woehler (ID No. PE23012)
- Name and title of the accompanying person (講義補助者の職・氏名)  
Haruka Kumagai (熊谷はるか)
- Participating school (学校名): Ochanomizu University Senior High School
- Date (実施日時): 15/11/2023 (Date/Month/Year: 日/月/年)
- Lecture title (講義題目):  
Investigating the Perceived Authenticity and Communicative Abilities of Face-Swapped Portrait Videos
- Lecture format (講義形式):  
◆  Onsite ・  Online (Please choose one.)(対面 ・ オンライン)((どちらか選択ください。))  
◆ Lecture time (講義時間) 50 min (分), Q&A time (質疑応答時間) 25 min (分)  
◆ Lecture style (ex.: used projector, conducted experiments)  
(講義方法 (例: プロジェクター使用による講義、実験・実習の有無など))  
Presentation using a projector

- Lecture summary (講義概要): Please summarize your lecture within 200-500 words.  
I presented a summarization of the results of my PhD thesis, highlighting the scientific process and important points when planning and conducting research. Furthermore, I talked about computer science in general to provide insights into the discipline. As the school is an all-girls high school, I also gave my impression on being a female student and researcher in computer science.

The talk started with an introduction of myself, my hometown, and the German school and University system. Afterwards, I briefly discussed different areas of computer science and explained why I chose the fields of computer vision, computer graphics, and human-computer-interaction. I also showed recent results of a master student at my current lab to illustrate what student projects in this field could look like. The introduction concluded with a look at female computer scientists and my individual experiences in this field.

## SD

※弊会記入欄

In the main section of the talk, I first showed examples of face-swapped videos and explained different use-cases for the technique as well as challenges regarding the abuse of the technique. I also explained how face-swapped videos are created and briefly introduced the main concepts of deep learning. Afterwards, I summarized the dataset generation and three experiments from my PhD thesis. During this, I tried to emphasize my considerations when planning and conducting my research instead of talking about specific details. The experiments I introduced during the lecture investigate the perceived authenticity of face swaps using online questionnaires as well as eye tracking. Furthermore, I included one experiment that looks at the communicative abilities of face swaps by analyzing the way participants perceive their conveyed emotions.

The lecture ended with a conclusion and a Q&A session.

◆Other noteworthy information (その他特筆すべき事項):

- Impressions and comments from the accompanying person (講義補助者の方から、本事業に対する意見・感想等がありましたら、お願いいたします。):

It was a very good opportunity for high school students to be exposed to the field of computer science. It would be good to continue to actively create lectures on various fields.

### Introduction: Braunschweig

- Around 250.000 inhabitants
- University founded in 1745
- Birthplace of the mathematician Gauss
- Dense research area: University, research institutes, industry
- Around 2 hours to Berlin or Hamburg, easy access to nature





Image copyright: Stadtmaking Braunschweig, Phillip Zierbart, Steffen and  
Leile-100808

A woman in a black top is standing at the front of the lecture hall, presenting to the audience.

An audience of students is seated in a lecture hall, facing the presentation screen. They are sitting at white desks with white chairs. Some students have bags and phones on their desks.