

(For JSPS Fellow)

Form B-5

Date (日付)

26/12/2014

(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): _____ (ID No. P _____)

Richard Veale

- Participating school (学校名): _____

県立磐田南高等学校

- Date (実施日時): _____ (Date/Month/Year: 日/月/年)

17/12/2014

- Lecture title (講演題目): (in English) _____

Why did I look there? Computational, Neural, and Robotic Models of Visual attention

(in Japanese) _____

そこを見ちゃったのはなぜだ？ 視覚注意をシミュレートする計算モデル、神経モデル、ロボットモデル

- Lecture summary (講演概要): Please summary your lecture 200-500 words.

I presented a lecture about visual attention in humans. Specifically, I first introduce them to the fact that our eyes move every 200 milliseconds without our awareness. Then, I ask them, how does the brain decide where to make the eyes look next? And, I tell them there are two main things that decide this: 1) bottom-up factors (simple image processing) and 2) top-down factors (experience, context, goals, etc.). My research is about bottom-up factors, so it is what I present in this lecture. I present two examples of models for processing images to decide where to look. 1) Optic flow and 2) Saliency map. I present simple explanation of what they are processing, and then I show the real-time demonstrations of the models with video cameras and laptop computers. Then, I explain in more detail how the saliency map computes local and global differences. Then, we take a long break and I let them come play with the laptop computers with the cameras running to models to see for themselves. In the second half, I re-present and review the lecture again in simpler English. Finally, I have a long period to talk about the applications and answer questions. Afterwards, I talked for about 20 minutes with several students from the class who had more interest.

- Language used (使用言語): **English (I used a little Japanese at the end to answer questions)**

- Lecture format (講演形式):

◆Lecture time (講演時間) **90** min (分), Q&A time (質疑応答時間) **30** min (分)

◆Lecture style (ex.: used projector, conducted experiments)

(講演方法 (例: プロジェクター使用による講演、実験・実習の有無など))

Gave a lecture with the projector and also had demonstrations on my laptop computers with video cameras to demonstrate the content. Specifically the saliency map and optic flow.

◆ Interpretation (ex.: assistance by accompanied person, provided Japanese explanation by yourself) (通訳 (例: 同行者によるサポート、講師本人による日本語説明))

Provided Japanese explanation by myself. However, I tried to use only English because I thought that was the (main) purpose of this program. Perhaps I had misunderstood and I think next time I would use more Japanese. But, in that case it seems better to just send a Japanese researcher who will certainly be better able to explain their research in Japanese.

◆ Name and title of accompanied person (同行者 職・氏名)

N/A

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

- Impressions and opinions from accompanied person (同行者の方から、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。):