Doctoral School
Annual Conference 2022
Poster Competition
IMPACT OF REMOTE WORKING ON employees' WORK-LIFE BALANCE

Research Question: understand the relationship between remote working and employees' work-life balance?

Practical contributions:
1: understand the way remote working affects employees' ability to perform work and life
2: help companies to correctly use remote working to increase employee's work-life balance.

Research objectives:
1. Understand the way remote working help employees improve work-life balance.
2. Examine the way that companies can control productivity when employees work remotely.

Research gaps
1. Some of the research stated that remote working is not only provides a positive influence on work-life balance
2. Lack of research focus on work and 'life' balance.

Expected qualitative research process:
Stage 1: Systematic literature review
Stage 2: Empirical study with interview

Theoretical contribution
1. In the context of remote working development, analyze the work-life balance of employees under remote working. Provides a state-of-the-art comprehensive review of the existing literature in the field of remote working and work-life balance, and proposes new ideas for future research.
2. Advise the company/human resource management team on how to increase work-life balance and control productivity in remote working for employees to address the gaps in the existing literature.

Student: Yuen Yui Lam
Supervisor: Professor. Simosi Maria
Professor. Neil Conway
‘The pastry was that hard, they needed a chainsaw to cut it’.
-Hortense Gordon (Domestic)

‘I’m sorry to keep talking about food’ apologises Lucille Eichengreen’s interviewer. Lucille responds, ‘that’s okay, food is very important’.

In an era of persecution, food insecurity, emigration and novel foodways, how did women interact with food, cooking and domestic work?

Did class and/or bourgeois tastes interfere with these exchanges?

How does the kitchen and the dinner table become both a reminder of loss and a vehicle for restoration?
Consumption practices and sustainable fashion: An Indian perspective

How Indians practice fashion and sustainability?

Sustainable fashion embodies terms such as fair trade, organic, green, slow and few more like this, each one of them struggling to emphasise everything that is wrong with the fashion industry including worker exploitation, environmental degradation, and animal cruelty (Blanchard, 2013; Bianchi & Birtwistle, 2010; Bray, 2009).

A PRACTICE THEORY APPROACH

Against the model of the sovereign consumer, practice theories emphasise routine over actions, flow and sequence over discrete acts, dispositions over decisions, and practical consciousness over deliberation. In reaction to the cultural turn, emphasis is placed upon doing over thinking, the material over the symbolic, and embodied practical competence over expressive virtuosity in the fashioned presentation of self. (Warde, 2014, p.286)

ETHNOGRAPHIC APPROACH – Online ethnography

Presented by - SHWETA CHOWDHARY
3rd year PhD Management
Supervised by –
Dr Lauren McCarthy
Dr Andreas Chatzidakis
How do state actors repress pro-migrant civil society in Europe?

Since the ‘refugee crisis’ in 2015, there have been large numbers of migrants and refugees on the move and living in (formal and informal) camps throughout Europe. Civil society actors (CSAs) like volunteers, activists and NGOs have played a major role in helping them. However, state actors have tried to stop their work in different ways. Cases in which CSAs have been targeted by (mis)using smuggling legislation and prosecuted for being human smugglers are particularly well known.

In 2019, I conducted 4 months of field research in France, Greece and Italy: 6 weeks of participant observation volunteering in Calais and Lesvos, and 90 research interviews. I found that state actors repress pro-migrant CSAs in many different overlapping ways. As a result of my research, I developed a framework of repression and criminalisation, identifying six key ways in which state actors repress pro-migrant CSAs in Europe.

The overemphasis on smuggling prosecutions obscures the larger picture and makes it harder to fight back. My framework is an analytical tool which can be used by researchers, journalists and CSAs to identify and challenge state abuses and repression.
Abstract

My research aims at an understanding of dynamic changes and new organizational forms and connects them with an understanding of bureaucracy building on Max Weber. This brings bureaucracy into view as a basic phenomenon of the social fabric, which today to a considerable degree has eluded view and therefore critical discussion. But it also takes a new look at the rationality of bureaucracy and shows that, contrary to conventional understanding, creativity and innovation are closely linked to bureaucracy. This may also explain the unbroken attractiveness that bureaucracies – private and public - continue to exert, even if - for good reasons - they avoid calling themselves such. The work has a largely theoretical orientation, drawing on very different fields of inquiry, but also takes a new look at the rationality of bureaucracy and shows that, contrary to conventional understanding, creativity and innovation are closely linked to bureaucracy. This may also explain the unbroken attractiveness that bureaucracies – private and public - continue to exert, even if - for good reasons - they avoid calling themselves such. The work has a largely theoretical orientation, drawing on very different fields of inquiry.

1. Introduction

1.1. Bureaucracy as a Concept

Bureaucracy is conceptualized as a fixed and static organizational form. The scholarly meaning of the term captures an ever-shrinking set of phenomena from formal organizations, to public formal organizations, to dysfunctional public formal organizations, etc.

1.2. Weber’s Theory of “Verband”

A new reading of Weber’s Wirtschaft und Gesellschaft is proposed that centers on the basic vocabulary of Chapter 1, and derives a framework for bureaucracy that transcends the Weberian ideal type that has so sustainably marked the post-Weber discussion.

2. Research Questions

RQ 1: How can a theoretical vocabulary of bureaucracy take creativity & innovations into account with the Weberian ideal-type as well as post-bureaucracy as special cases?

RQ 2: What is the specific bureaucratic rationality, the reasoning applied to justify bureaucratic action?

RQ 3: How must bureaucracy be thought together with the cultural dynamics of the social environment?

3. Methodology

3.1. Weber’s Theory of “Verband”

A new reading of Weber’s Wirtschaft und Gesellschaft is proposed that centers on the basic vocabulary of Chapter 1, and derives a framework for bureaucracy that transcends the Weberian ideal type that has so sustainably marked the post-Weber discussion.

3.2. The rationality of bureaucracy

Based on the post-Weber discussion on rules and conceptualizations of bureaucracy (Du Gay, 2000, 2005) two vocabularies will be mobilized to help understand how bureaucratic rationality is at work, practice theory (Nicolini and Monteiro, 2016) and legal theory (Owkin, 1988; Schauer, 2002; Raz, 2009) and how rules and practices co-constitute social order (for an illustration see Figure 1).

3.3. Understanding the cultural dynamics of bureaucracy

The Weberian ideal type is located within a theory of the history of modernity/modernities drawing on a large scholarly literature (Giddens, 1990, Boltanski and Chiapello, 2018, Reckwitz, 2020). The working assumption is that new organizational forms are driven by cultural changes as well as the rationality of bureaucracy and that they can be made intelligible by the help of ideal types (Figure 2).

3.4. Quantitative Case Study

The usefulness of the theoretical vocabulary as well as the bureaucratic rationality in its specific cultural environment shall be demonstrated in an empirical case study. At this stage the most likely candidate is the Austrian Tax Administration Reform in the 2000s.

4. References


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How parents choose apps matters. An investigation into how parental app attitudes affect children’s development

Research Questions

- **We know** children are using apps 1-2
- **We know** under the right conditions, apps have educational potential 1
- **We don’t know** how parents are choosing which apps to give to their children and what this means for learning
- How do parents choose apps for their children?
- Do parental app attitudes affect children’s learning?

Methods

1. **Parent survey**
   - Ask the questions
2. **Exploratory Factor Analysis**
   - Uncover attitudes
3. **Confirmatory Factor Analysis**
   - Explore trends
4. **Compare models**
   - Test significance

Results

- Child’s Age
- Home Learning Activities
- Vocabulary
- Educational
- Engaging & Fun
- Child’s App Attachment
- Social Use

What does this mean?

- Choosing apps because they are engaging and fun can negatively impact children’s vocabulary
- Parents’ app attitudes are influenced by home activities, educational and social values
- Including on whether they are educational
- Parents choose apps based on a number of factors

Why does it matter?

- Parent app choices and attitudes affect learning
- Why helps and what hinders learning, allows us to inform parents of different ways to use and choose apps
- We have worked with policy makers and charities to increase awareness of how apps and attitudes can affect learning

References:

Effect of Religiosity on Consumers Choice Preferences:  
A Dual-system framework

Student: Sumir Mathur  
Supervisors: Dr Sameer Hosany & Dr Mikael Andéhn  
Department: Management

Religious dimensions extend to rituals, values, beliefs and community. Dual-processing systems on the other hand, within the realm of religious psychology have been established as a reliable predictors in forming attitudes and behaviour. Studying the effects of religious beliefs in consumption is important because consumers express the intensity of their belief's through their consumption choices. Although, dual-systems and its application in various facets of human behaviour have been discussed previously, the role of consumers’ religiosity or religious beliefs and their interaction with the dual-systems in choices remains an under-researched area. A variety of factors influence consumers consumption decisions, but there is very little in-depth research about the interaction of religious beliefs and psychological processes in underlying choice contexts. The research objectives are:

Examine the impact of religiosity and dual-systems on consumers choice preferences (CPC)

Examine the interaction of religious beliefs with the dual-systems in underlying choice contexts. How religious beliefs affect information processing (intuition and cognition) that ultimately shape decisions?

Theoretical approach/ Methodology

Building on a framework connecting religious dimensions with consumer states and behavior (Matras et al. 2016). Preference for intuition and deliberation is based on the information processing model (Betsch and Iannello, 2010). The research use quantitative methods to understand and explain how religious beliefs interact with the dual-systems and shape choice preferences.

Methods and Approach

Primary research shall be broken down into two data source groupings considering the heterogeneity of the population in India: 1) religious consumers and 2) non-religious consumers. This research will use mixed methods including a self-completion questionnaire and structured interviews.
THE COLONIAL HISTORIES AND CONTEMPORARY PRACTICES OF WESTERN CLASSICAL MUSIC IN INDONESIA: THE CASES OF JAKARTA, BANDUNG, AND YOGYAKARTA

Aniarani Andita (Department of Music)

Questions
1. How did Western classical music (WCM) come into Indonesia, and how was it intertwined with the history of colonialism?
2. How do contemporary Indonesians (audience, musicians, composers, performance producers, government) practise and think about WCM?

Methods
- Archival research
- Ethnography

Findings

Conclusion
WCM practices as a site of negotiation and tension between making sense of the colonial past, imagining a postcolonial Indonesia, and situating postcolonial Indonesia in the global world

Indonesian view of reconceptualisation and rearticulation of WCM practices

Case studies in Java

Opera performance in Jakarta (Batavia), 1867

Gita Bahana Nusantara, virtual concert, 2020
This year marks 100 years since women were first called to the Bar and admitted to practice as solicitors in England and Wales. Although women were permitted to sit for law degrees and made many attempts to access the legal profession, it was not until the passing of the *Sex Disqualification (Removal) Act 1919* that they were permitted to join the Law Society and the Inns of Court, which regulated access to the legal profession.

My thesis explores the opening of the legal profession to women in 1919 in the context of the women’s movement of the late-nineteenth, early twentieth century and the concurrent trend towards professionalization, and asks:

**How successful were the first women lawyers?**

This includes consideration of issues such as:

- What factors affect their success?
- What is success and who gets to decide?

My research will be based on primary source material held in the following archives:

- The Inns of Court: (Lincoln’s Inn, Inner Temple, Middle Temple, and Gray’s Inn);
- The Law Society;
- The Women’s Library Collection at LSE;
- The British Library;
- London Metropolitan Archives: City of London;
- The Wellcome Collection;
- Heritage Quay;
- Huddersfield Local Studies Library;
- West Yorkshire Archives Service;
- The John Lewis Partnership Heritage Centre;
- The Institute of Advanced Legal Studies;
- Various university archives;
- The TUC Library Collections at London Metropolitan University;
- The National Archives;
- Hansard;
- The British Newspaper Archive.

In seeking to answer the questions set out in my brief, focusing on the period 1880-1939, my chapters will cover the following topics:

1. Attitudes from the legal profession and academia to the question of women lawyers and law students.
2. The public response to women lawyers.
3. The aims and ambitions of the first women lawyers.
4. Case studies of women who took different routes into the legal profession:
   - Mary Sykes (Browne);
   - Enid Rosser (Locket);
   - Hannah Cross (Wright).
5. Public histories of the first women lawyers.

**Katie Broomfield**

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The New Logic of China’s Global Trade: Strategic Narrative and Nation Branding

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Introduction

• How has China used the China International Import Expo (CIIE) to brand its national image? The CIIE is organised to frame a positive image of China, conduct domestic and international propaganda and enhance China’s soft power.

System Narrative

• China and other states should embrace an open and fair international trade order in the context of the rise of protectionism.

• China proposes that inclusive development is important to ensure suitable and fair progress across different economies.

Identity Narrative

• China’s self-identification in the multilateral system varies in different contexts. China positions itself as a contributor and reformer in the current system.

• China positions itself as a robust and growing economy. The robust Chinese economy is the backbone of China and the CIIE.

Policy Narrative

• The CIIE highlights trade issues on seizing win-win opportunities to China and the world. China would continue to improve market access and provide a competitive market welcomed by the international community.

• There have been substantial market opportunities in China brought by sustained growth and an expanding middle-income group in the Chinese economy, coupled with a great demand for high-quality imports.

Strategic Narrative

The Shanghai Brand

• The CIIE promotes the city of Shanghai as an open and global city. City branding is generally perceived as an effective strategy to enhance a city’s competitiveness.

• Hosting the CIIE provides Shanghai with a golden opportunity to shape its brand. The reputation and momentum generated from mega-events are captured and transferred to the brand values of the host.

The Panda Brand

• The Chinese government used panda imagery to enhance a friendly relationship with foreign political leaders and populations, and to establish a warm, peaceful and attractive national image offline and online.

• Jinhbao (进宝) a cartoon and personified image of a giant panda, is created to be the mascot to represent an auspicious symbol of treasure and wealth.

The Shanghai Brand

• The CIIE promotes the city of Shanghai as an open and global city. City branding is generally perceived as an effective strategy to enhance a city’s competitiveness.

• Hosting the CIIE provides Shanghai with a golden opportunity to shape its brand. The reputation and momentum generated from mega-events are captured and transferred to the brand values of the host.

• The Shanghai brand synthesize why Shanghai could host the CIIE, how Shanghai supports the CIIE and how Shanghai benefits from the host. The difference in value perception between local and foreign people, and real experience and the branded image of Shanghai affect the city brand’s value.

• The constructed panda imagery brings clear brand value to China in the projection of narratives. However, several panda mascots in China and the difference between real pandans and the panda imagery could bring confusion and uncertainty to the image perception and, therefore, hinder the panda brand’s effectiveness.

Conclusion

• The distinction of media ecologies inside and outside China implies the Chinese government would perform differently to domestic and international audiences. Also, in a mega-event where other great powers are present, it is sensible that other countries have their narratives.

• The Shanghai brand synthesize why Shanghai could host the CIIE, how Shanghai supports the CIIE and how Shanghai benefits from the host. The difference in value perception between local and foreign people, and real experience and the branded image of Shanghai affect the city brand’s value.

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References


Acknowledgements

Andrew Hok Lim Lo gratefully acknowledges the support and expertise from Ben Griffiths and Zhang Zhipeng for their continuing support and expertise. This project is funded by Royal Holloway, University of London.
Who was H.D.?

H.D. (born Hilda Doolittle, 1886-1961) was an American writer, associated with the early 20th century Imagist movement and the modernist film collective, the POOL group. Her work and her significant contributions to modernism was recovered by revisionist feminist scholars, with Susan Stanford Friedman famously imploring ‘who buried H.D.?’

H.D.’s Hotel Visions

How do hotel spaces feature in H.D.’s work and why are they often sites for H.D.’s mystic revelations?

Conclusions:
- Hotels play a significant role in H.D.’s literary and spiritual register.
- They act as a conduit or ‘charm’ for H.D.’s psychic experiences.
- The story ‘Mira-Mare’ and the titular hotel forms a dialogue with H.D.’s previous autobiographical visions.

Fig. 1 [Still from Borderline (1930)]

Fig. 2

Fig. 3 [Notes and Thought on Vision]

Fig. 4

Fig. 5 [Tribute to Freud]

Fig. 6

Fig. 7 [Kora and Ka with Mira-Mare]

Polly Hember, PhD Student

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Annual Doctoral Conference 9th June 2022
This project seeks to recreate the onboard domestic environments of Royal Navy Battleships and explore how they were experienced by their crews.

Ships plans provide details of the spatial arrangement and furnishing of onboard spaces. They allow exploration of themes such as; how rank and status were defined and how material culture can be used in a institutional environment by both the governing body and its inhabitants.

The records of the men lost allows us to research them both as individuals and as a crew. By looking at their domestic backgrounds we can explore how they might have experienced and related to the domestic environment of the ship.

Adverts for both naval and civilian domestic items can also add to our understanding of the domestic furnishings and spatial arrangements onboard ship.

Diaries, letters, oral histories and photographs allow further insights into what domestic spaces on ships were like. They can also reveal how these spaces were used, altered and experienced in daily life.
Effect of two formats of presentation (Virtual Reality and 360 screen-based) on situation awareness of remote operators of autonomous vehicles

Mutzenich, C., Durant, S., Helman, S. & Dalton, P. Royal Holloway, University of London, Transport Research Laboratory

Background
The introduction of autonomous vehicles (AVs) could prevent many accidents attributable to human driver errors. However, even entirely driverless vehicles will sometimes require remote human intervention. There will be significant human factors challenges unique to remote driving situations.

Introduction
Situation Awareness (SA) refers to knowing what is going on around you and is divided into three levels:

- **Level 1 Perception**: Basic level of awareness. Perception and recognition of cues in the environment.
- **Level 2 Comprehension**: Analysis of the current situation. Understanding of the meaning of information.
- **Level 3 Projection**: Ability of the operator to make predictions about the future status of objects in their environment.

Remote operators (ROs) of AVs will be unable to provide remote supervision until they gain necessary SA.

Two critical questions for the automated transport industry concern:
1. what equipment ROs will need to build and maintain SA quickly and safely, and
2. in what format SA information should be delivered.

Procedure
We used a choice reaction task to assess the effect of two formats of presentation: VR and screen-based 360 (SB-360).

Participants viewed 60 videos, filmed from the perspective of a stationary car, wearing either a VR headset in one condition (VR), or viewed in 360-degree format on a 2-D computer screen (SB-360).

![Virtual reality (VR)](image)

Figure 2 Procedural design

Participants made an active decision in each video as to the direction the vehicle would need to take next (left, right, continue forward or reverse), using second-hand SA information from the scene. They were not expected to conduct the manoeuvres. The dependent variable was the time taken in seconds to press the corresponding button on a keypad indicating their decision.

Hypotheses
We tested two behavioural hypotheses;
- presentation format (SB-360/VR) will affect reaction time
- presentation format will affect accuracy of decision.

We also predicted that there would be differences between the two conditions in terms of self-reported sense of presence and workload (measured on the NASA-TLX).

Results
Results were analysed using a linear mixed effects model¹ and showed,
- on average, decisions were made in the VR condition in 80% of the time required in the SB-360 condition.
- Participants were more than 2x as likely to give correct answers when videos were presented in the VR condition than in the SB-360 condition.

We found a significant effect of presence in the VR condition. There were no significant differences for any workload measures between the two conditions although participants reported they found wearing the headset in the VR condition uncomfortable.

Conclusions
Participants made significantly faster and more accurate decisions in VR than in the screen-based condition indicating it could be an appropriate presentation format for remote operation of AVs.

Impact of the research
We recommend that companies offering remote supervision of AVs should,
1. explore the potential of VR presentation to enhance operators SA in the remote scene.
2. Limit VR to shorter periods of operation to reduce negative workload issues.

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¹package::lme4

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Clare Mutzenich. Psychology department.
Introduction
Women’s bodies navigated and challenged political, work, home, and relationship spaces throughout the early 20th century. This project analyzes representations of those bodies in women’s novels.

Current Findings
Corporeal descriptions of female characters provide us with additional insight into the various roles women had to navigate in the early 20th century. The evolution of physical descriptions present in the texts analyzed shows the discovered capabilities of many women of the time.

The addition of bodily representations to the knowledge of women’s contributions throughout suffrage, war, and the aftermath can aide in a fuller understanding of history as well as provide additional tools to combat inequalities today.
The treatment of female and juvenile ‘asocials’ in Nazi concentration camps 1939-1945 by Claire Topsom,

Who were considered ‘asocials’?

‘asocials’ were groups of people considered by the Nazis as non-productive members of society. These included people such as the homeless, beggars, prostitutes and the workshy, who were identified by a black triangle in the concentration camps.

Why research ‘asocials’?

1. There is some, though limited, research in German on ‘asocials’. In English ‘asocials’ are mentioned in research however there is no detailed study of this group.

2. ‘asocials’ were a group targeted by the Nazis from 1933 for removal from society. However it has taken until 2020 for the German Bundestag to officially recognise ‘asocials’ as a group persecuted by the Nazis.

3. Asocials’ were ostracised in society, but did this continue in the camps? Survivor accounts place ‘asocials’ close to the bottom of the camp social structure. However, Sarah Helm’s study of Ravensbrück concentration camp shows that a number of ‘asocials’ gained positions of power, they became Blockova’s. Is Ravensbrück typical or unique in relation to ‘asocial’ experiences?

4. Why were some juveniles sent to the misleadingly named Youth Protection Camps, Jugendschutzlager, and others sent to standard camps? Why were these camps established even though very few juveniles were released?

My methodology

My research will use arrest records, camp reports, and prisoner and survivor testimony. Survivor testimony may be problematic as survivors and families have not spoken about experiences in fear of continued ostracism towards those considered ‘asocial’, therefore it is important to consider who the memory attests to and why.

This will also bring into discussion the changing of the meaning of the term survivor, particularly in relation to those who have only just been recognised as a persecuted group.

Current reflections

‘asocials’ form part of the ‘forgotten victims’ group. Is the term forgotten misleading? Have we chosen to forget this group? Does the lack of research and dialogue regarding ‘asocials’ reflect the continued discrimination they receive today?

‘People are fighting for recognition of what happened in the past, but also what is happening now.’

Tania Gessi from the Roma Support Group

Newspaper headlines shaming those who could be considered ‘asocial’ in the Twenty First Century

The terrible results of a woman drunkard.
It shows that over 83 years, she had 894 descendants, of whom 40 were indigent, 67 criminals, 7 murderers, 181 prostitutes, 142 beggars. “436 (about 50%) were asocial, and caused 5 million Marks of harm.”

People are fighting for recognition of what happened in the past, but also what is happening now.'

Tania Gessi from the Roma Support Group
The legitimacy of pepper spray in prisons
Jeanette Hall, School of Law and Criminology (Jeanette.Hall.2021@live.rhul.ac.uk)

Introduction
Pepper spray is a new use of force tactic in prisons in England and Wales. It incapacitates subjects by inducing crying and breathing difficulties. It can promote safety and reduce harm, but to date, little is known about its impacts.

This poster presents the main themes from a literature review about pepper spray. Legitimacy and its detractors and drivers in prisons, provide a theoretical foundation for thinking about how prisoners, staff and the purposes of prisons may be affected by pepper spray.

Emerging themes
Legitimacy is to do with felt obligation to obey, promoting compliance with the law (Beetham 1991). It is important in promoting safety and well-being in prison and preventing reoffending (Beijersbergen et al 2014, 2015 & 2016).

Prisons continually ‘leak’ legitimacy, just as a bucket might leak water, because they are inherently coercive (Sparks, Bottoms & Hay 1996). Prisons can cultivate legitimacy by fostering relational aspects of performance like those in the downwards orange arrow (Liebling, 2004). See Figure 1.

Legitimacy is not absolute – it varies by audience and by context (Bottoms & Tankebe 2012). Competing claims may lead to an incomplete moral consensus (Tankebe 2008). Pepper spray can therefore both support and undermine legitimacy.

Possible supportive effects include:
• Less physical injury for prisoners (Smith et al, 2008)
• Deterrence (Hepburn et al, 1997)
• Prisoners feel safer because they perceive staff have better tools for stopping assaults (HMPPS, 2018)
• Staff feel more confident (HMPPS, 2018).

Possible undermining effects include:
• Net increase in the use of force (Lumb & Friday, 1997)
• Use when verbal persuasion was an option (HMPPS, 2018)
• Perceptions of unfairness, e.g. minority groups (Lammy, 2017)
• Deteriorating staff-prisoner relationships (HMPPS, 2018)
• Psychological trauma from being sprayed (FFLM, 2021).

These different dynamics may pull in opposite directions and the least politically powerful audiences may struggle to be heard.

Next steps
Quantitative research is required to establish how and when pepper spray is used in prisons. Qualitative research is also required to investigate questions such as:
• How do different groups of staff and prisoners perceive the legitimacy of pepper spray?
• How do perceptions of pepper spray legitimacy vary between prisons?
• How are staff affected emotionally when they deploy pepper spray?
• What are the emotional effects of being sprayed?
• What types of pepper spray use do prisoners or staff consider fair or unfair?
• Is there a correlation between pepper spray use and measures of legitimacy?

Such research may help avoid future uses of pepper spray which are likely to undermine legitimacy. It may also identify other ways in which pepper spray impacts legitimacy, either positively or negatively.
DO voters affect higher education funding?

9 out of 10

Respondents in the developed countries support public subsidies for low-income students. Tuition fees are also unpopular [1].

Main argument: politicians introduce cuts to higher education funding to the extent voters don’t notice.

Research question: Politicians like taking popular decisions. Then WHY do we have to pay so much for our higher education?

A few details:

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Geography of the study: developed democracies (OECD members)


KEY FINDINGS:

VOTERS care about rising fees but don’t always see the connection between rising fees and government funding [2, 3]. CUTS in turn are more likely where there is less support for financial aid to students, role of the government is less visible or right-wing parties are in power. [4]

CHANGE in governor approval following changes in tuition fees

Change in tuition in public universities, %

- Centralized tuition setting
- Individual institutions set their own tuition
- Area represents 95% confidence intervals
SoC-based odour recognition with high-level synthesis

Fanny Monori
Department of Electronic Engineering

Background

From medical diagnosis to industrial safety applications, there have been experiments of using gas sensor arrays for automatic recognition (classification) of gases. Most of the existing applications run only on PC, but an implementation on a System-on-Chip (SoC) device could offer a portable solution that can achieve fast recognition time and good accuracy.

References


Step 1: Pre-process data

- Dataset normalization
- Data transformation
- Baseline manipulation
- Downsampling

Step 2: Train neural network

- Dataset is “Gas sensor arrays in open sampling settings” [1]
- 18000 measurements, 8 sensors on a sensor array.
- 10 classes: Acetone, Acetaldehyde, Ammonia, Butanol, Ethylene, Methane, Methanol, Carbon Monoxide, Benzene, and Toluene

Step 3: Define model in C++

- Implement the neural network in C++ in AMD Xilinx’s Vitis HLS environment
- Vitis HLS translates the C++ code into a design that can run on an FPGA (RTL design)

Step 4: Simulate and synthesize in Vitis HLS

- Define and train model [2] with TensorFlow
- Quantization of weights and biases with QKeras
- Save weights and biases

Next steps

- Assemble data acquisition platform and collect data
- Implement neural network training with HLS
- Perform incremental learning on device

Acknowledgement

I would like to thank my supervisor, Dr Alin Tisan, for his guidance on my work.
Abstract
A quantum algorithm consists of many quantum gates, which are unitary operators operating on qubits. Due to physical limitations, qubits are a limited resource on a quantum computer. Furthermore, due to noise from the environment, every application of a quantum gate can introduce errors. Hence, quantum error correcting codes are necessary to make sure the computation does not fail. As errors might arise during the error correcting process we aim to achieve fault tolerance, in which any error affects at most one component of the system. We look into a set of codes which do not rely on resource intensive magic state distillation procedures, the triorthogonal codes, and prove that their minimum size is 15.

Transversal Operation
An operation that can be implemented in a bitwise fashion.

Universal Gate set
A set of Quantum Gates that can approximate any gate to arbitrary accuracy.

Eastin-Knill Theorem
There is no Quantum Error Correcting Code that can transversally implement a universal set of gates.

References: