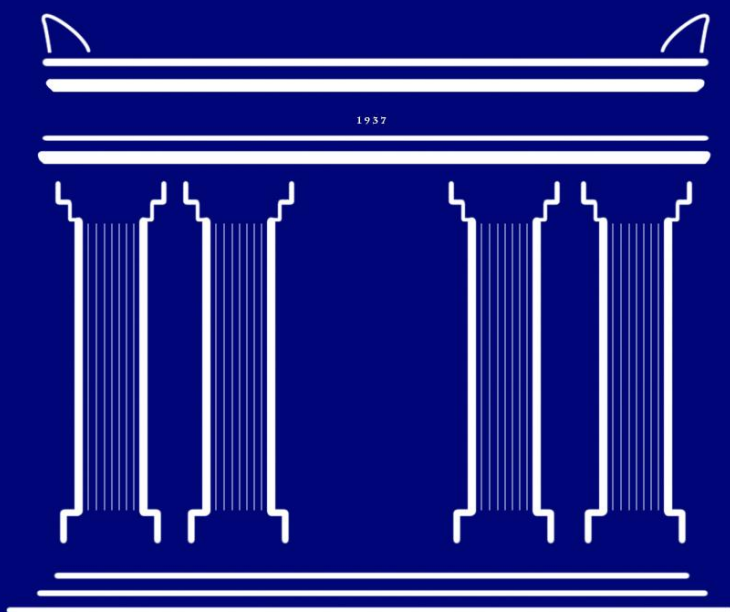


# TRINITY

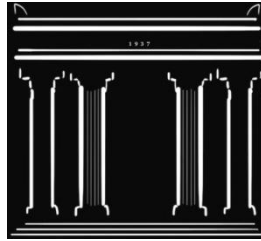
Postgraduate Review

XVII



Knowledge and Society

# TRINITY COLLEGE DUBLIN



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# Trinity College Dublin | Postgraduate Review 2018

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## Foreword

It is my honour and privilege, as Dean of Graduate Studies in Trinity College Dublin, to write this foreword to the 2018 *Trinity Postgraduate Review*. As a research led university, and a proud member of the League of European Research Universities, Trinity is, of course, hugely invested in research in all disciplines and across all themes. Critical to its research vision and outputs is the work of its postgraduate students, and, to the extent that publication is the fruit of impactful research, this journal (which of course showcases the work of postgraduate students both from Trinity and from other universities) is a representation of the truly breathtaking research that postgraduate students around the world are engaged in. As part of my role, I review all examiners' reports into PhD and Research Masters theses, and I am constantly struck by, and receive inspiration from, the depth, innovation and sheer brilliance of the research and outputs of students and early career researchers. This journal is, for me, a celebration of this brilliance and I welcome it as such.

The 2018 *Review*, focused as it is on the broad theme of 'Knowledge and Society' offers tremendous scope for interesting and innovative analysis of the most pertinent issues that face humanity on a daily basis. The articles contained therein take up the challenge of such a broad theme and cover many disparate areas on diverse topics from rural electrification in America, to the use of social media as a tool in measuring suitability of prospective employees, to the relationship between *Dracula* and the position of women in the workplace. All of the authors are to be congratulated for their dedication to their research and the quality of the work that is published in this journal.

Finally, I would like to pay tribute to the outstanding work of the editorial board for the review, and especially Alexander Jones the Editor-in-Chief, in producing a journal of this quality. More generally, I would like to acknowledge the phenomenal work of Trinity's Graduate Students Union in working for the welfare of all postgraduate students in Trinity.

Global society in 2018 is, I believe, threatened by the proliferation of so-called 'fake news' and the undermining of the concept of the 'expert'. It is my view that, within this environment, the mission of universities and researchers to pursue knowledge and truth and to disseminate the results of their pursuits convincingly and fearlessly has never been more important. This journal is true to this mission, and the work of those published here gives me solace and optimism as I look to the future.

**Professor Neville Cox**  
**Dean of Graduate Studies**  
**February 2018**

## Preface

After a long and exciting publication cycle, we are delighted to present the seventeenth volume of *Trinity Postgraduate Review (TPR)*. This year, we have continued our mission to disseminate high-quality research from postgraduate students across a range of disciplines, both here in Trinity College Dublin and in our fellow institutions further afield. We believe that early career researchers, such as the ones published in these pages, are inherently worthy of platforms from which they can share their work. The contribution to knowledge and research output made by postgraduates cannot be underestimated or undervalued, and we are proud to be able to provide a space where a small sample of that work can be made available to our peers.

In this volume, *TPR* seeks to achieve these aims through the theme of '**Knowledge and Society**'. In a world increasingly characterised by the overturning of old certainties, questions of what we know, and how we know it, are of immediate importance. Increasingly common phrases such as 'post-truth politics' indicate the desire for a new vocabulary that attends to this broad shift in how we understand the world. Society, too, is a concept that requires re-assessing. It can be delineated in several ways, and these myriad definitions can hold tremendous power to include and exclude. This implies questions of the contemporary self, and how the individual negotiates these different, sometimes overlapping, categories of society.

This year's contributors have interpreted this theme in a variety of interesting ways. Catherine Barnwell looks at the process of rural electrification in the United States through the lens of the documentary film series *Electrification Comes to the Farm*. Cian O'Neill proposes an alternative history of sexuality in Ireland, using Catholic sex advice pamphlets to look at society's attitudes towards sexuality in the twentieth century. We are now several years into the 'decade of centenaries'; with this in mind, Monica Rabii explores how public art installations can problematise the commemorations of traumatic pasts. Jessica Balu looks at how the Government of Kiribati, an island nation in the Central Pacific, is taking on the challenge of global warming with a programme of 'Migration with Dignity'. Rebecca O'Dowd and Jessica

Power present evidence on the effectiveness in using Social Network Sites in determining the suitability of potential employees in the hiring process. Tanya Zubrzycki asks whether Irish Institutes of Technology face a shift away from their local mission in light of their proposed amalgamation into Technological Universities. Samatha Orsulak, from the University of York, examines the way that *Dracula* engages with contemporary ideological shifts with regards to the role of women in the workplace. In the hard sciences, Stephen Reynolds presents results from a study into triage options for managing HPV-positive women.

This edition of *TPR* has been, as ever, a labour of love, and the editorial board wishes to express our gratitude to everyone who has had a part in its making. We would like to thank Shane Collins, GSU President and Chair of the Review, for offering us the resources necessary to put together another volume and ably guiding us through the bureaucratic and financial necessities to make it a reality. We would also like to express our gratitude to the Dean of Research, Professor Linda Doyle, and the Research and Innovation Office, as well as Dean of Graduate Studies, Professor Neville Cox, for their continued commitment to promoting postgraduate research. Their continued support for interdisciplinary projects, such as *TPR*, is a vote of confidence in platforms such as ours, which give early career researchers a vital first step in their journey to creating innovative, ground-breaking research. Their support also means that Trinity College Dublin can consolidate its claim to be the home of Irish research at every level. Special thanks goes to all the postgraduate students who served as peer reviewers for this volume. Their insight was vital in making sure that the papers we present are of a high standard.

**Alexander Jones, Editor-in-Chief**  
**Laura McCloskey, Associate Editor**  
**Catherine Bromhead, Associate Editor**  
**Daryl Hendley Rooney, Editor**  
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**Conor Pyle, Editor**

## **A Radical Call and Muted Response? – Kiribati, Migration with Dignity, and Climate Migration in the South Pacific**

Jessica Balu<sup>1</sup>

### **Abstract**

The Government of Kiribati, a nation in the South Pacific susceptible to the growing impacts of climate change, has proposed an ambitious relocation strategy termed “migration with dignity” for its population of over 100,000. The two-stage proposal of increasing and supporting expatriate communities abroad coupled with ensuring qualifications and skills of i-Kiribati facilitate effective integration into the overseas labour market provides an opportunity to examine mass migration initiatives as championed by migrant-sending nations. This paper will explore the policy and practice of migration with dignity and how this connects with Pacific labour mobility initiatives. It will test whether the articulation of this principle, including the deliberate decision to omit the word “refugees”, is in fact a radical shift from orthodox perceptions of migration in the Pacific and show how this relocation strategy may be drawn into the wider narrative of i-Kiribati and Micronesian history as another chapter of travel throughout the region. This paper will also look at the response of migrant-receiving countries, namely Australia and New Zealand, to assess the role they must play to facilitate successful climate migration in the region.

**Keywords:** Kiribati, migration, climate change, policy, South Pacific

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<sup>1</sup> MPhil in Race Ethnicity Conflict, Department of Sociology, Trinity College Dublin, Ireland.

## Introduction

Climate change adaptation is at the forefront of contemporary policymaking for small island states faced with complex decisions about the survival of their populations. The Government of Kiribati, an island nation in the South Pacific has proposed a relocation strategy labelled “migration with dignity” to equip its population of over 110,000 indigenous Kiribati (known as i-Kiribati) with the resources necessary for mass migration.<sup>2</sup> Migration with dignity has been designed to align with pre-existing migration pathways and initiatives to Australia and New Zealand. The strategy is framed to deliberately empower i-Kiribati and disengage with the currently incompatible international framework on refugees and draws into the wider narrative of Pacific travel and journeying to emphasise the role of the Pacific community in providing a “home” for i-Kiribati, creating a seemingly radical framework for future climate migration. The emphasis on empowerment and agency of i-Kiribati that lies at the heart of migration with dignity. However, this can only be effectively implemented if migrant-receiving countries foster the conditions to allow mass migration to take place. To date, although there has been a shift in rhetoric from countries such as Australia and New Zealand, practical responses to migration with dignity have been limited.

Kiribati comprises a group of low-lying atoll islands in the Equatorial Pacific with a population of over 110,000, half of whom reside in the capital South Tarawa.<sup>3</sup> Pacific nations, such as Kiribati, are particularly susceptible to the effects of climate change. It is estimated the highest point of Kiribati is only three metres above sea level, and predictions from United Nations Framework Convention on Climate Change and the Intergovernmental Panel on Climate Change hold that Kiribati will be largely underwater by 2050.<sup>4</sup> Under the leadership of former President Anote Tong, Kiribati has vocally advocated for greater

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<sup>2</sup> Pronounced “Keer-ee-bahss”; as reference, Christmas Island is spelled “Kiritmati Island” in Gilbertese.

<sup>3</sup> Of the thirty-three islands that make up Kiribati, thirty-two are atolls.

<sup>4</sup> Intergovernmental Panel on Climate Change, *Climate Change 2014: Impacts, Adaptation, and Vulnerability. Part A: Global and Sectoral Aspects. Chapter 12: Human Security. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge University Press, Cambridge, 2014), 2.

action from the international community to mitigate the effects of climate change and provide adaptation solutions; although Kiribati has been commended for voicing these issues, this advocacy has seen limited effect. Domestically, through inter-departmental cooperation coordinated by the Office of the President, the Government of Kiribati has enacted the Kiribati Adaptation Programme. This involves a series of initiatives designed to build resilience to climate change through orthodox measures such as water management and monitoring the impacts of climate change.<sup>5</sup> Innovative adaptation solutions such as dredging land to slow down the impact of rising sea levels to the purchase of land in Fiji (on Vanua Levu) as a contingency measure for future migration have also been explored.<sup>6</sup> These initiatives have been supported with large development projects funded by donors such as the European Union and the governments of Australia and New Zealand, but it is accepted that due to the speed at which climate change is impacting the country, the long-term survival of i-Kiribati is unlikely to include remaining in Kiribati. Considering this, the Government of Kiribati has examined the role of mass migration as an option for i-Kiribati.

### Understanding Migration with Dignity

Migration with dignity refers to a two-pronged strategy of i-Kiribati migration launched in 2012 to address the survival of the population of Kiribati in the wake of climate change impacting the state.<sup>7</sup> Whilst discussed as an “option of last resort” upon its launch by then-President Tong, there is a general acceptance by i-Kiribati that migration resulting from climate change is a growing reality.<sup>8</sup> The first element of the policy emphasises the need to create opportunities for i-

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<sup>5</sup> For further information, see the Republic of Kiribati National Adaptation Programme of Action and the Republic of Kiribati National Framework for Climate Change and Climate Change Adaptation, both from 2013.

<sup>6</sup> “Kiribati turns to UAE to save island,” SBS Australia, accessed 20 November 2017. <https://www.sbs.com.au/news/kiribati-turns-to-uae-to-save-island>; Elfriede Hermann and Wolfgang Kempf, “Climate Change and the Imagining of Migration: Emerging Discourses on Kiribati’s Land Purchase in Fiji,” *The Contemporary Pacific* 29, no. 2 (2017): 242 – 245.

<sup>7</sup> “Relocation,” Office of the President of Kiribati, accessed 20 November 2017. <http://www.climate.gov.ki/category/action/relocation/>.

<sup>8</sup> Lacy Allgood and Karen E. McNamara. “Climate-induced migration: Exploring local perspectives in Kiribati.” *Singapore Journal of Tropical Geography* 38, no. 3 (2017): 370 – 385.

Kiribati to migrate abroad and build expatriate communities which can then work to absorb further waves of i-Kiribati migration. Countries of migration are widely considered to be Australia and New Zealand, due to pre-existing migration pathways and longstanding Pacific links. The second element of the policy aims to improve the qualifications and skills of the local population to both ensure i-Kiribati workers' effective integration into the international labour market and strengthen the quality of institutions and services to provide for those remaining in the country. Migration with dignity is a clear articulation of climate migration, a form of environmental migration precipitated by the impacts of climate change on land and territory. Climate migration is not considered an ideal "solution" to climate change.<sup>9</sup> Although climate migration is not a new phenomenon, significant uncertainty rests around the concept due to the future conditionality of climate change itself, and the growing recognition of climate change as an issue that will impact a sizable portion of the global population, necessitating mass migration.<sup>10</sup> The migration with dignity strategy is deliberate, emphasising that in order for successful migration to occur the process must be carefully managed.<sup>11</sup> There is also a focus on ensuring this migration takes place over an established period of time, and not as a single, possibly destabilising, wave.<sup>12</sup>

Migration with dignity aligns neatly with existing labour mobility practice in the Pacific, going some way to assist in marketing the policy as one capable of implementation. The migration opportunities noted in the first strand of the migration with dignity policy have been widely interpreted to mean increasing labour mobility opportunities for i-Kiribati, either through existing labour mobility programmes to Australia and New Zealand, or championing additional

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<sup>9</sup> Carol Farbotko, Elaine Stratford, and Heather Lazrus, "Climate migrants and new identities? The geopolitics of embracing or rejecting mobility," *Social & Cultural Geography* 17, no. 4 (2016): 533 – 552.

<sup>10</sup> Andrew Baldwin, "Pluralising climate change and migration: an argument in favour of open futures," *Geography Compass* 8, no. 8 (2014): 516 – 528.

<sup>11</sup> Roy Smith and Karen E McNamara, "Future migrations from Tuvalu and Kiribati: exploring government, civil society and donor perceptions," *Climate and Development* 7, no. 1 (2015): 57.

<sup>12</sup> And thusly necessitating a humanitarian-scale emergency. See Kelly Wyatt, "'Escaping a rising tide: Sea level rise and migration in Kiribati,'" *Asia & the Pacific Policy Studies* 1, no. 1 (2014): 171 – 185.

labour mobility initiatives that have been long sought after by the Government of Kiribati, such as in the fisheries sector. Several labour mobility pathways for i-Kiribati currently exist, from the Recognised Seasonal Employer (RSE) in New Zealand to the Seasonal Workers' Programme (SWP) in Australia. Current take-up of these initiatives by i-Kiribati is limited, particularly in proportion to other Pacific nations such as Samoa, Tonga, and Vanuatu. The reasons for this are varied, from difficulties in accessing initiatives in the first instance, to lack of adequate qualifications, to the burden of cost and time taken to travel in order to be considered in such initiatives.<sup>13</sup> These programmes, alongside others such as the Pacific Access Category (PAC) in New Zealand and the Kiribati-specific Kiribati Australia Nursing Initiative (KANI) in Australia have provided some measure of migration there have been calls for greater action; institutions such as the World Bank have called for greater migration and opening of migration pathways due to the unprecedented impact of climate change and need for i-Kiribati to migrate in larger numbers.<sup>14</sup> There have also been calls to reconsider the role of permanent migration in such schemes in comparison to the current policy setting of encouraging circular migration, whereby migrants travel between their home country and country of work.<sup>15</sup> In the case of climate migration this model is unsustainable and requires reconsideration on the acceptance of permanent migration as an acceptable consequence of labour mobility initiatives in the case of migrants from states severely impacted by climate change.

The standardisation of qualifications as noted in the second strand of the migration with dignity policy is a common thread in Pacific development practice and is perhaps the most orthodox element of the strategy. Australia and New Zealand have funded or are currently funding many initiatives in the region to improve qualifications and enable Pacific populations to find work outside the

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<sup>13</sup> Richard Curtain, Matthew Dornan, Jesse Doyle, and Stephen Howes, "Pacific Possible, Labour Mobility: The Ten Billion Dollar Prize," *World Bank Group*, July (2016).

<sup>14</sup> *Ibid.*

<sup>15</sup> Charles Stahl and Reginald Thomas Appleyard, *Migration and development in the Pacific Islands: Lessons from the New Zealand experience* (Canberra: Australian Agency for International Development, 2007).

region, often by standardising qualifications to international benchmarks. Policies such as this have attracted criticism for their contribution to the Pacific “brain drain,”<sup>16</sup> but in the case of countries such as Kiribati with the impending challenge faced by climate change, this policy takes on a different framing by allowing for the option of permanent migration. The improvement of qualifications also allows for i-Kiribati to more readily access labour mobility initiatives currently available in the region, from pre-existing pathways such as RSE and SWP to entering the traditional labour force in New Zealand and/or Australia, particularly in the fisheries and nursing sectors due to the emphasis on standardising qualifications in those areas. The inclusion of qualification standardisation may seem unhelpful as this is already in effect taking place; it is however a useful element of wider migration policy and practice to consider. By including an existing practice in the policy, it appears to suggest that the “radical” notion of climate migration is not as drastic as first thought, because the steps required are already well underway – and as this is already taking place, it is not a significant stretch to facilitate the rest of the policy. The reference also signals to development donors that this is a development initiative which the Kiribati Government wishes to see continue, working to attract international funding and build the case for continuing work in this sector.

### **A “Radical” Call? Articulating migration with dignity**

The expression of migration with dignity appears radical despite its underpinning within orthodox migration pathways because of the clear emphasis on migration as a feasible policy option for climate change adaptation, rather than looking to options to allow populations to remain in their homeland. Some neighbouring Pacific states have expressed dismay at this articulation because of the risk. Migration may be viewed as an “easier” action for donor governments to undertake than to address the root causes of climate change. Kiribati is perceived as “out of step” to other Pacific Island states due to this.<sup>17</sup> The literature

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<sup>16</sup> Smith and McNamara, “Future migrations from Tuvalu and Kiribati: exploring government, civil society and donor perceptions,” 47 – 59.

<sup>17</sup> Ibid.

on climate migration highlights the notion of loss and grief in prospective climate migrant communities in a manner like refugee communities due to the loss of homeland.<sup>18</sup> Climate migration is often referred to in the context of vulnerability of populations that are prospective climate migrants, and is also reflected in the use of the phrase “climate refugee” in the lexicon when discussing migration resulting from climate change.<sup>19</sup> Migration with dignity has been carefully articulated to address these ideas of vulnerability and uncertainty, particularly important due to its development by a migrant-sending Government taking steps to encourage mass migration.

The language used when explaining migration with dignity is deliberately framed to empower i-Kiribati and elicit action from migrant-receiving countries, particularly Australia and New Zealand. The formulation of migration with dignity instils agency in i-Kiribati, enabling empowerment to act meaningfully in the wake of climate change with the support of the government. This question of empowerment and agency is evident in other rhetoric surrounding the impact of climate change, whereby reference to Kiribati as a “vulnerable” nation is replaced with “resilient”, and “mitigation” is replaced with “adaptation” to acknowledge the active steps that are being taken by the state to combat the effects of climate change.<sup>20</sup> Climate change is an issue that Kiribati is engaging with, rather than simply being subjected to. Moreover, the process of migration with dignity positions i-Kiribati with action and choice rather than passivity. This choice may appear as a fiction due to the realities of climate change rendering the homeland unliveable, but the ultimate decision to migrate is left with i-Kiribati, with the government placing themselves in the position to facilitate whatever choice is made by the population – whether to go (and be aided by improved qualifications or the establishment of expatriate communities) or to stay (and be supported

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<sup>18</sup> Farbotko, Stratford, and Lazrus, “Climate Migrants and New Identities?” 537.

<sup>19</sup> Robert McLeman and Lori M. Hunter, “Migration in the context of vulnerability and adaptation to climate change: insights from analogues,” *Wiley Interdisciplinary Reviews: Climate Change* 1, no. 3 (2010): 450 – 461.

<sup>20</sup> Ellanna Steiner, “A sea of warriors: Performing an identity of resilience and empowerment in the face of climate change in the Pacific,” *The Contemporary Pacific* 27, no. 1 (2015): 147 – 180.

with local institutional capacity development assisted by those trained to higher qualifications standards). Karen E. McNamara notes that the policy is only equipped to facilitate the migration of those who are “ready and willing” to do so, and does not sufficiently work to provide migration pathways for all i-Kiribati, such as those outside of the labour market or unable to migrate at all.<sup>21</sup> The language also works to engage with migrant-receiving countries; by labelling i-Kiribati as “migrants with dignity” the formulation requires states to consider i-Kiribati as migrants able to fully enjoy the benefits of the states they move to (like other citizens or residents), and not be classified in terms that may suit host governments. The label of migrant is one that is selected by the migrant-sending state, rather than applied by the migrant-receiving state as a tool for classification or process.

A critical component of the framing of migration with dignity is the omission of the word “refugee” from the strategy. There is an expectation that i-Kiribati who leave Kiribati under the migration with dignity policy are treated as any other migrant travelling offshore, and are not victimised due to their circumstance. This aligns with criticism levelled at the categorisation of refugees, a label often applied to populations by governments of refugee-receiving states – it is perceived as a matter of convenience for receiving governments to generate efficiencies within their own systems and allow for “othering” of the incoming community.<sup>22</sup> The criticism levelled at refugee rhetoric is supported in part by the legal standing of the term – as shown in cases brought to the judicial system in New Zealand,<sup>23</sup> those who apply for refugee status on climate change grounds have thus far been unsuccessful because they have been unable to meet the criteria of

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<sup>21</sup> Karen E. McNamara, “Cross-border migration with dignity in Kiribati,” *Forced Migration Review* 49 (2015): 62 – 62.

<sup>22</sup> Steiner, “A Sea of Warriors,” 147 – 180; Baldwin, “Pluralising Climate Change and Migration,” 516 – 528.

<sup>23</sup> See *Ioane Teitiota v The Chief Executive of the Ministry of Business, Innovation and Employment* [2015] NZSC 107 [20 July 2015] for the current status of climate refugees under New Zealand law (brought by a Kiribati national); for further cases with Tuvaluan nationals ref. *AJ (Tuvalu)* [2017] NZIPT 801120-123 and *AI (Tuvalu)* [2017] NZIPT 801093-094. Cf: *AC (Tuvalu)* [2014] NZIPT 800517-520. *AC Tuvalu*, a Tribunal hearing which ruled to grant residency on the basis of climate change, is distinguished from the preceding cases as climate change was a contributing factor to the decision, and not the primary ground argued for residency.

“persecution” required to satisfy the legal test to qualify as refugees. The language of refugees, particularly regarding legal standing, is insufficient to grapple with the circumstances of climate displacement, leaving a significant gap in the international framework. Although work is underway to remedy this, including the establishment of the Platform on Disaster Displacement, critical consideration must be given to climate migration as a unique set of circumstances. Disengaging from the use of the word “refugee” serves three purposes; i-Kiribati are imbued with agency and not treated as victims, questions around legal standing are sidestepped, and Governments of migrant-receiving countries are forced to contend with incoming communities as another category of migrant to be treated with the benefits of such status.

The purposeful framing of the “migration with dignity” policy also allows for an embedding within wider Pacific narratives of the role of migration and travel in the Pacific experience, further marking out the policy as one of a natural next step rather than a dramatic shift in policy settings. Migration is not unfamiliar to Pacific populations, with myths across the region featuring stories of communities and individuals traversing the Pacific for opportunity or due to circumstance.<sup>24</sup> There are several documented cases of intra-state migration within the Pacific as well, including Kiribati itself.<sup>25</sup> In contemporary practice migration across the Pacific is common, with many Pacific communities established in major centres in New Zealand and Australia due to opportunity, who then remit a portion of their earnings back to their families and communities in the Pacific.<sup>26</sup> The reference to Australia and New Zealand by name within the migration with dignity policy is intentional, as the two countries that are the primary recipient of Pacific populations with long-standing political, cultural, and social ties to the Pacific region.<sup>27</sup> It is well documented

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<sup>24</sup> Matt Matsuda, *Pacific Worlds: A History of Seas, Peoples, and Cultures* (Cambridge: Cambridge University Press, 2012).

<sup>25</sup> Jane McAdam, “Historical cross-border relocations in the Pacific: lessons for planned relocations in the context of climate change,” *The Journal of Pacific History* 49, no. 3 (2014): 301 – 327.

<sup>26</sup> Richard Bedford et al, “Managed Temporary Labour Migration of Pacific Islanders to Australia and New Zealand in the Early Twenty-first Century,” *Australian Geographer* 48, no. 1 (2017): 37 – 57.

<sup>27</sup> Ibid.

that New Zealand and Australia have been referred to by several Pacific nations as the first “port of call” in addressing climate change and providing assistance for climate change adaptation strategies, due to their role in the region as significant donor countries with developed economies and their shared histories.<sup>28</sup> As other Pacific communities have shown, high migration rates to New Zealand and Australia from the Pacific have created transnational networks able to facilitate continuing waves of migration,<sup>29</sup> and the migration with dignity strategy seeks to rely on a similar network to be established between i-Kiribati offshore. Pacific migration, particularly within the region, is seen as inherently transnational due to the myriad reasons for migration and the strong connection retained with home islands.<sup>30</sup> Transnationalism also works in opposition to more colonial understanding of the Pacific; migration and transnationalism across the Pacific as described by Epeli Hau’ofa is one of the ocean as a connection to home, rather than a barrier.<sup>31</sup> Distance is de-emphasised in favour of the strength of ties and connections to the homeland. Transnational ideas are in part embedded within the migration with dignity policy itself, particularly with the focus on building expatriate or diaspora communities of i-Kiribati that are then able to facilitate further waves of i-Kiribati migration. These networks allow for an ease in relocation by establishing micro-communities that assist incoming migrants in fostering belonging and community as they leave their homes behind, with an aim to establish a new home.<sup>32</sup> The underlying assumption is that these expatriate communities will still retain connections to the homeland to assist with further waves of migration and build up communities themselves, whilst retaining some form of i-Kiribati identity. There is also scope to develop transnational networks between expatriate communities, particularly as waves of i-Kiribati migration increase over time.

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<sup>28</sup> Ibid.

<sup>29</sup> Stahl and Appleyard, *Migration and development in the Pacific Islands*.

<sup>30</sup> Helen Lee and Steve T Francis, eds., *Migration and Transnationalism: Pacific Perspectives* (Canberra: Australian National University Press, 2009).

<sup>31</sup> Epeli Hau’ofa, *A new Oceania: Rediscovering Our Sea of Islands* (Suva: School of Social and Economic Development, The University of the South Pacific in association with Beake House, 1993).

<sup>32</sup> Helen Lee, *Migration and Transnationalism: Pacific Perspectives*.

The notion of migration as part of the “Pacific way” is carefully set against customary ties to land as a basis for community and identity. Pacific populations retain strong relationships with land, and the loss of land due to climate change presents a significant challenge of loss of associated culture and tradition, which requires a recalibration of identity considerations and working through the loss of place.<sup>33</sup> In the case of Kiribati, ties to the land are significant and coupled with community and culture as critical to the idea of “home” and i-Kiribati identity. This presents a significant obstacle when considering mass migration, as this fundamentally challenges the notion of what it means to be i-Kiribati when the land used as a referent is no longer accessible. The migration with dignity policy alone does not present active mechanisms for working through this challenge, and this is an identified gap in the strategy that requires further consideration.<sup>34</sup>

### **Responding to “migration with dignity”**

The Australian and New Zealand systems have responded to the Kiribati call for action as exemplified by their migration with dignity strategy outside of international development and migration channels. On the international stage, New Zealand and Australia have championed the voice of Pacific nations and their concerns regarding the impact of climate change, bringing awareness of the challenge faced by small island nation states. Domestically, although the courts have failed to recognise climate change as a reason to provide refugee status, significant discussion has emerged about pathways to migration for Pacific populations acutely facing the issue of climate change. The recently-released Briefing for the Incoming New Zealand Minister of Foreign Affairs notes that climate-induced migration is a possibility, with its approach to this issue likely to be closely monitored by other international actors.<sup>35</sup> Recent statements by New Zealand’s new Minister for Climate Change have shown appetite for consideration of a

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<sup>33</sup> Erin Roberts and Stephanie Andrei, “The rising tide: migration as a response to loss and damage from sea level rise in vulnerable communities,” *International Journal of Global Warming* 8, no. 2 (2015): 258 – 273.

<sup>34</sup> Ibid.

<sup>35</sup> New Zealand Ministry of Foreign Affairs and Trade, Brief for Incoming Minister of Foreign Affairs.

new visa category for climate migrants, and public opinion when canvassed has shown broad support for allowing “vulnerable” Pacific populations to access migration pathways to New Zealand and Australia.<sup>36</sup> Interestingly, the official response from the Australian Government to the New Zealand climate migrant visa proposal has been critical, with a call to focus first on “effective adaptation and internal relocation.”<sup>37</sup> In Australia, a legislative attempt to amend the Migration Act 1958 to create a category for climate migrants lapsed in 2008, with no further steps undertaken. Although the Australian system is currently publicly focused more on the role of climate change as a security threat,<sup>38</sup> Australia’s role in the Platform for Disaster Displacement suggests some capacity for discussion regarding the likely trajectory of climate migration and its implications.

Labour migration strategies have fostered the conditions appropriate for migration with dignity to take place over the short-term. Whilst migration with dignity may be viewed as radical at first glance, the careful selection of migrant-receiving countries with strong Pacific connections and pathways for migration is carefully calibrated to ensure minimal disruption of existing migrant flows. What the migration with dignity policy is unable to do however is actively influence the behaviour and attitudes of migrant-receiving countries to accept the mass migration of i-Kiribati in the wake of climate change. To date, there has been limited active engagement of New Zealand and Australian populations to prepare for climate migrants, and there has been a documented fear of acceptance of migrants in the migrant-receiving countries due to lack of understanding of culture and tradition.<sup>39</sup> It remains unclear as to how this will materialise in practice in the case of i-Kiribati; negative perceptions of Pacific populations do exist in New Zealand and Australia, but these are not generally

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<sup>36</sup> “NZ considers developing climate change refugee visa.” *Radio New Zealand*, accessed 28 November 2017. <http://www.radionz.co.nz>.

<sup>37</sup> “Climate refugees to be welcomed in New Zealand.”, *Christian Science Monitor*, accessed 28 November 2017. <https://www.csmonitor.com/>.

<sup>38</sup> Reporting on the matter is due in early 2018.

<sup>39</sup> “Kiribati confronts climate upheaval by preparing for migration with dignity,” accessed 1 December 2017. <https://news.mongabay.com/2017/07/kiribati-confronts-climate-upheaval-by-preparing-for-migration-with-dignity/>.

ascribed to migration or Pacific migrant communities explicitly.<sup>40</sup> The notion of a “Pacific migration” is not as controversial as migration of other populations, as there is no threat of identity or security in the manner of other migrant groups, and is thusly easier to sell to populations already hostile to certain forms of immigration.<sup>41</sup> The notion of Australia and particularly New Zealand (due to Auckland’s moniker as “the largest Pacific city in the world”) as Pacific countries, allows for a sense of migration of peoples that are similar and unthreatening to the national identities of these countries as their values, histories and cultural traditions are hailed as similar, even if this is not necessarily always the case. The comparatively small numbers of migration from the Pacific also work to cast Pacific migration as a relatively manageable and adjustable wave. This however remains largely untested in practical terms, and it is likely that if mass migration of i-Kiribati and other Pacific peoples occurs that these perceptions may shift.

Australia and New Zealand have championed climate change issues on an international level, but this rhetoric is yet to materialise as active policy implementation, particularly in recognising the role that climate migration may play as an adaptation measure. Migration with dignity is a significant step forward in working to ensure the survival of i-Kiribati, but cannot be the only step. An equal responsibility rests on migrant-receiving countries to facilitate the institutions and conditions necessary to accept this wave of migration. This is in the form of rhetoric, by outwardly and explicitly recognising climate migration as a legitimate category of migrant, and establishing pathways to enable climate migrants to establish themselves once relocating. This may also include facilitating the necessary support structures to allow i-Kiribati to work through the loss of homeland and providing support to i-Kiribati communities and networks as they grow with succeeding waves of migration.<sup>42</sup> Commentators have noted the opportunity that climate migration brings of pre-emptively installing measures to facilitate migratory waves, which requires

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<sup>40</sup> McNamara, “Cross-border migration with dignity in Kiribati,” 62 – 62.

<sup>41</sup> Steiner, “A Sea of Warriors,” 147 – 180.

<sup>42</sup> Roberts and Andrei, “The Rising Tide,” 258 – 273.

impetus on the part of migrant-receiving countries to take active steps.<sup>43</sup> To date, little evidence of this has been seen in the New Zealand and Australian systems, even as statements made by the governments of both countries increasingly accept that climate migration in coming decades is likely. There is an implementation gap at present: even if the two countries were to accept climate migrants and support migration with dignity, current policy settings are insufficient to address the peculiarities associated with mass climate migration, even that of a small neighbouring nation such as Kiribati. Several policy changes would be required; these include supporting migration of those who are unwilling or unable to undertake the move, providing services to support the i-Kiribati community as they come to terms with the loss of their homeland, and facilitating migration paths for those that will not be able to contribute to the workforce.

## Conclusion

As Kiribati has gained international profile as an illustration of the impact of climate change, there is increasing acceptance by i-Kiribati that mass migration may be necessary to ensure their long-term survival. Migration with dignity, a policy articulated carefully by the Government of Kiribati to address the gravity of climate migration whilst using pre-existing migration mechanisms, offers an opportunity to consider pathways for climate migration. The construction and articulation of the policy draws from migration and identity theory as interpreted through a practice-oriented and Pacific lens. However, for the policy to be successful, migrant-receiving countries are required to facilitate their own institutions and policy settings to ensure smooth migration. At present, such change is limited within the New Zealand and Australian systems, although government statements of late have indicated some willingness to adapt. These systems will need to act quickly before the impacts of climate change are severe enough to render managed migration paths useless in the wake of large scale displacement.

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<sup>43</sup> McAdam, "Historical cross-border relocations in the Pacific," 301-327; Wyatt, "Escaping A Rising Tide," 171 – 185.

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***Electrification Comes to the Farm:***  
**How Electricity Connected the Farm to Mainstream America**

Catherine Barnwell<sup>1</sup>

**Abstract**

In the early 1940s, the Rural Electrification Administration, newly created under Roosevelt's New Deal, produced *Electrification Comes to the Farm*, a series of documentary films highlighting the benefits of rural electrification for a farming family. Thanks to the household amenities and new farming methods made possible by electric power, dairy farmers no longer had to do things "the old way, the hard way" and they could consistently provide "fresh milk for the town and the city." At the onset of the Great Depression, access to electricity in rural regions had come to the fore as a potential solution to the ongoing agricultural crisis that had afflicted American farmers since the end of World War I. Rural electrification was enacted through the creation of the Tennessee Valley Authority in 1933 and the Rural Electrification Administration in 1935 under the umbrella of Roosevelt's New Deal policies, as well as the grassroots development of electrical cooperatives in rural counties. In parallel with a growing academic interest in agricultural science and economics, federal and local electrification efforts emphasized the interdependence of urban and rural economies, while allowing farmers to make up the lag in access to modern technologies and interact with various levels of government. Using the *Electrification Comes to the Farm* film series as a starting point, this paper argues that the process of rural electrification was instrumental in disseminating mainstream economic, socio-cultural and political knowledge to farming regions, bridging the chasm between rural and urban America during the Great Depression.

**Keywords:**

Electrification, rural, United States, Great Depression, New Deal

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### ***Electrification Comes to the Farm***

In the 1940 film entitled *Power and the Land* produced by the Rural Electrification Administration, director Joris Ivens featured the differences in a farming family's life before and after electrification. Thanks to the household amenities and new farming methods made possible by electric power, the dairy farmers no longer had to do things "the old way, the hard way" and they could consistently provide "fresh milk for the town and the city."<sup>2</sup> Although this transaction between farm and city had existed for years, the process of rural electrification during the Great Depression was instrumental in integrating rural regions into American mainstream culture, economy, and politics. Electrification occurred both from the top down, through creation of the Tennessee Valley Authority (TVA) in 1933 and the Rural Electrification Administration (REA) in 1935 under the umbrella of Roosevelt's New Deal, as well as from the bottom up, through the grassroots development of electrical cooperatives in rural counties. This paper seeks to use *Power and the Land* as a starting point within a broader context of New Deal electrification programmes to illustrate how electricity allowed the dissemination of mainstream socio-cultural, economic, and political knowledge to farmers. It will first consider the context of agriculture and electricity in the 1920s, before delving into a study of federal and local rural electrification initiatives during the Great Depression.

### **Agriculture and Electricity Before the New Deal**

At the onset of the Great Depression, access to electricity in farming regions came to the fore as a potential solution to the crop surplus crisis that had afflicted rural Americans since the end of World War I. In his seminal monograph chronicling the Great Depression and the Second World War, David Kennedy writes that the advent of motorised farm vehicles and the rush to produce greater quantities during wartime meant that "American farmers found themselves with

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<sup>2</sup> *Power and the Land*, directed by Joris Ivens (1940; Washington: Rural Electrification Administration).

huge surpluses on their hands” when the conflict ended.<sup>3</sup> Such a discrepancy between supply and demand caused crop prices to suffer significant drops during the 1920s, and caused farmers to make losses on production. According to tables computed from United States Department of Agriculture (USDA) Bureau of Agricultural Economics data, the income derived from wheat among Ohioan farmers — such as the family depicted in *Power and the Land* — dropped from \$30 million in 1920 to \$8 million in 1928.<sup>4</sup> Despite Herbert Hoover’s attempt at protecting American farmers from foreign market competition by imposing tariffs on imported goods through the Smoot-Hawley Tariff Act of 1930, farmers were already vulnerable to economic instability when the Great Depression dawned, becoming “its hardest-hit victims.”<sup>5</sup>

In investigating the significance of New Deal rural electrification policies, it is imperative to first survey the state of electrification prior to the New Deal’s implementation. In his monograph on the impacts of electrification in the United States, historian David Nye states that “not only was agriculture the last major sector inside the United States to be electrified, but Americans lagged far behind the major European nations.”<sup>6</sup> The majority of American farmers did not have access to distribution lines, or if they did, the prices they paid for electricity were significantly higher than those paid by urban dwellers.<sup>7</sup> Furthermore, Nye remarks that “the low American average hid important regional differences” in electrification figures, due mainly to the differences in types of farming.<sup>8</sup> The Northeast and Far West favored “intensive forms of agriculture [...] such as dairying, truck farming, and poultry raising.”<sup>9</sup> These smaller farms tended to be

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<sup>3</sup> David M. Kennedy, *Freedom From Fear: The American People in Depression and War, 1929-1945* (New York: Oxford University Press, 1999), 17.

<sup>4</sup> George Montgomery, “Wheat Prices Policy in the United States,” *Increasing Understanding of Public Problems and Policies* (1953): 65–66.

<sup>5</sup> Kennedy, *Freedom From Fear*, 18.

<sup>6</sup> David Nye, *Electrifying America: Social Meanings of a New Technology* (Cambridge: MIT Press, 1997), 287.

<sup>7</sup> *Ibid.*, 287.

<sup>8</sup> *Ibid.*, 299.

<sup>9</sup> *Ibid.*, 299.

more densely distributed, thus facilitating electrification by private utilities.<sup>10</sup> Conversely, the crops grown on the larger farms of the South and Midwest, such as cotton, tobacco, rice, corn, and wheat did not require electricity for intensive labor or storage.<sup>11</sup> Thus, while only 10% of American farms had access to electricity at the beginning of the Great Depression, the figure was even lower in certain regions of the rural South and Midwest.<sup>12</sup> The year before the creation of the Rural Electrification Administration, a Farm Housing Survey carried out by the Department of Agriculture found that “in 16 counties in Georgia 4 percent had running water, only 2 percent electric line service.”<sup>13</sup> These figures were later published in an REA document to illustrate regional differences in access to electric distribution lines.

What had caused this evident inaccessibility of electric power for American farmers? Brian Cannon’s case study of electric cooperatives in the American West sheds light on market-driven causes for these low electrification rates. He notes that the sparse population and landscape characteristics raised the estimated costs of extending power lines into rural areas for private utilities, leading many privately owned companies to conclude that “rural electrification in most places was prohibitively expensive.”<sup>14</sup> Nye adds that the agricultural depression of the 1920s and 1930s also contributed to private utilities’ reluctance to invest in rural areas.<sup>15</sup> Sarah Phillips’ history of the Great Depression in rural areas through the lens of the land conservation movement points to a skepticism towards government-provided utilities prior to the Roosevelt administration. Although Hoover supported development projects that would provide electricity in the rural South, his free-market principles and his “opposition to government transmission of power or regulation of utilities” ensured there had been no efforts to make rural electrification a government

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<sup>10</sup> Ibid., 299.

<sup>11</sup> Nye, *Electrifying America*, 299.

<sup>12</sup> Ibid., 287.

<sup>13</sup> David Cushman Coyle, ed., *Electric Power on the Farm*, (Washington: United States Government Printing Office, 1936), 126–127, Hathi Trust Digital Library.

<sup>14</sup> Brian Cannon, “Power Relations: Western Rural Electric Cooperatives and the New Deal,” *Western Historical Quarterly* 31 no. 2 (2000): 141.

<sup>15</sup> Nye, *Electrifying America*, 23.

programme under his presidency.<sup>16</sup> Thus, both the private sector's unwillingness to provide distribution to rural areas and the Hoover administration's laissez-faire attitude towards utility provision made New Deal electrification policies all the more significant to the farmers they reached, as will become apparent throughout this paper.

Although the significance of the New Deal electrification efforts lie somewhat in their national scope, it is interesting to note already before Roosevelt's New Deal, state legislators had undertaken rural electrification projects. Pennsylvania had pioneered state planning of access to electric power under the governorship of Gifford Pinchot in the 1920s. Pinchot's Giant Power Board, headed by engineer Morris Cooke, targeted the main issues faced by rural Americans, notably the access to distribution lines and the affordability of energy sources.<sup>17</sup> It addressed the issue of firm concentration in the power industry by advocating for the "'interconnection' of local, regional, and interstate power resources," arguing that a uniform system would prevent discriminatory pricing for rural dwellers.<sup>18</sup> Through state planning of resource use and allocation, the Giant Power project combined principles of the conservation movement with electrification initiatives. According to Cooke, the government-led conservation of such natural resources as waterways and mines would take on a new meaning for farmers, not least because it "[spelled] cheap power for the farm."<sup>19</sup> Although Phillips notes that not much concrete change came from the Giant Power initiative, it was a step towards public provision of electricity during the Great Depression.<sup>20</sup>

### **Electrification Under the New Deal: Federal Planning**

With the gap in the market for rural electricity created by private utility companies, and the precedent for government-provided electricity set by Pinchot in Pennsylvania, the federal government was poised to take on electrification as a New Deal programme. The New

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<sup>16</sup> Sarah T. Phillips, *This Land, This Nation* (New York: Cambridge University Press, 2007), 23–4.

<sup>17</sup> Phillips, *This Land*, 26.

<sup>18</sup> *Ibid.*, 25.

<sup>19</sup> *Ibid.*, 27.

<sup>20</sup> *Ibid.*, 34–35.

Deal first used conservationist principles and electric power to tackle rural poverty in the South through the Tennessee Valley Authority (TVA) of 1933. Described by Kennedy as an “unprecedented experiment in comprehensive, planned regional development,” this programme emerged from Roosevelt’s First Hundred Days as an attempt to alleviate poverty and economic stagnation in the Tennessee Valley.<sup>21</sup> As a multifaceted agency, the TVA “constructed multipurpose dams, transmitted hydroelectric power to farms and towns,” but also focused on the conservation of the area’s forests and soil.<sup>22</sup> While rural electrification constituted one aspect of the TVA’s activities, the Rural Electrification Administration, created in 1935, was entirely dedicated to “getting transmission lines to the farms.”<sup>23</sup> Nye also notes that while the TVA’s experiment with planning was confined to one region, the “REA was a more decentralized programme that eventually operated in forty-six states.”<sup>24</sup> Although federally controlled, both these agencies worked with local cooperatives in order to meet local needs, which will be discussed further in the second half of this paper. The creation of these two agencies through the New Deal represented direct federal involvement in the process of rural electrification.

By making rural electrification the object of New Deal programmes, the TVA and the REA integrated rural Americans’ interests into the federal political structure. During his first presidential campaign, Roosevelt’s ability to connect with the American people was evident as he announced his support of rural electrification as a government programme. Campaigning in Portland, Oregon, he told audiences: “Cold figures do not measure the human importance of electric power in our present social order. Electricity is no longer a luxury; it is a definite necessity.”<sup>25</sup> By committing government resources to providing this “necessity” to Americans across rural regions through New Deal electrification programmes, he was acknowledging rural Americans’ need for better access to electric

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<sup>21</sup> Kennedy, *Freedom From Fear*, 153.

<sup>22</sup> Phillips, *This Land*, 80.

<sup>23</sup> Nye, *Electrifying America*, 315.

<sup>24</sup> *Ibid.*, 307.

<sup>25</sup> Coyle, *Electric Power on the Farm*, 85.

power. In *The American Farmer and the New Deal*, his comprehensive study of the agricultural sector under Roosevelt's administration, Theodore Saloutos remarks that having advertised his support of rural electrification on the campaign trail, "Roosevelt's election in 1932 meant that rural electrification had been accepted at the highest government level."<sup>26</sup>

The attention paid to the issue of rural electrification by New Deal policy makers connected farmers to economic revitalization efforts on a national scale. This rhetoric is mirrored in the *Electrification Comes to the Farm* film series, produced in the early 1940s by the REA for the purposes of promoting their work and encouraging farmers to participate in federal electrification programmes. The films feature the Parkinson family's activities on their dairy farm in Ohio. As dairy farmers, the contrast in the efficiency of farming techniques before and after electrification is stark. While milk can sour if it is not properly cooled, the REA vaunted that with the arrival of electric power, "no more milk that should've fed the children [is] gone to the pigs."<sup>27</sup> The TVA and the REA also connected the economic well-being of farming regions to the economic well-being of America. In *Power and the Land*, the first movie of the *Electrification Comes to the Farm* series, the narrator claims that it "seems wrong somehow" that 75% of farmers go without electricity, echoing Roosevelt's support for rural electrification as a necessity.<sup>28</sup> In addition to highlighting the improvements in farm yields facilitated by electrification, the rhetoric utilized throughout *Power and the Land* encapsulates the growing economic connection between rural areas and the American mainstream. By using film to reach rural audiences as well as depict the benefits of electrification for a farming family, the REA was emphasizing the modernity of its programmes. Furthermore, the script's nationalist overtones offer insight into the economic links between farmers and the American mainstream: "the bread we eat and the milk we drink depend upon Bill and Hazel

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<sup>26</sup> Theodore Saloutos, *The American Farmer and the New Deal* (Ames: The Iowa State University Press, 1982), 210.

<sup>27</sup> Ivens, *Power and the Land*.

<sup>28</sup> Ibid.

Parkinson.”<sup>29</sup> While a bucket of fresh milk is shown being poured out, the narrator describes the importance of this “milk that makes bones and muscles for the children of the nation.”<sup>30</sup> Thus, in the *Electrification Comes to the Farm* films, the REA made a strong case for rural electrification by directly connecting America’s economic growth and health with access to electricity for farmers.

Rural electrification also connected hinterlands of the South and the Midwest to the core urban regions of the United States. Even the distribution patterns of electric power in early electrification projects allowed a connection between rural and urban areas as many farmers obtained their electricity through interurban lines.<sup>31</sup> More importantly, electrification did not only bring new and efficient farming tools, but also made modern household appliances available to farmers. While technological advancements “had decidedly increased the gap between the farm and the city” before the Great Depression, rural electrification during the New Deal era would dispel the image of the farmer as “a hopeless bumpkin, out of touch with the technological realities of modern life.”<sup>32</sup> In his discussion of *Electrification Comes to the Farm*, Ronald R. Kline notes that, in addition to farmers and politicians, the films also targeted electric appliance manufacturers, in order to present rural communities as potential customers.<sup>33</sup>

In particular, rural women sought electrification as a means to reduce their load of household chores, as well as to “place them on par with women in towns and cities.”<sup>34</sup> This is explicitly portrayed in *Power and the Land*. According to the script, Hazel Parkinson’s desire is to be able to access running water at the turn of a faucet, “the way you can in town.”<sup>35</sup> Time-saving appliances for homemakers were followed up with communication technologies. Through her analysis of oral histories of North Carolina women, Audra Wolfe concludes that “the

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<sup>29</sup> Ivens, *Power and the Land*.

<sup>30</sup> Ibid.

<sup>31</sup> Nye, *Electrifying America*, 292.

<sup>32</sup> Ibid., 303, 291.

<sup>33</sup> Ronald R. Kline, *Consumers in the Country: Technology and Social Change in Rural America* (Baltimore: Johns Hopkins University Press, 2000), 190–195.

<sup>34</sup> Cannon, “Power Relations,” 138.

<sup>35</sup> Ivens, *Power and the Land*.

typical family first installed lights, then purchased an electric iron, a washing machine, and maybe a radio.”<sup>36</sup> Indeed, as economist John Steele Gordon writes in his economic history of the United States, electrification allowed “much closer contact with the nation as a whole through such means as radio and the telephone,” which could be wired after the installation of electric poles.<sup>37</sup> This suggests that the arrival of these communication methods not only improved rural quality of life, but that it was significant in establishing greater socio-cultural connections between rural inhabitants and America’s urban core.

The uses for electricity that benefited Bill and Hazel Parkinson in *Power and the Land* connected them to mainstream America. While the film’s script reveals nationalist overtones, David Nye notes that many Americans perceived electrification to be a local rather than a national issue.<sup>38</sup> As Cannon’s case study of electric cooperatives has shown, rural localities in the West and the South expressed resistance and distrust towards federal New Deal policies.<sup>39</sup> This resistance to electrification among farming communities was one reason the REA commissioned the film series, and one of the reasons why *Power and the Land* also depicts the positive impacts of bottom-up electric cooperatives.

### **Grassroots Electrification Initiatives**

The New Deal programmes related to rural electrification did not merely succeed through top-down federal control. A key aspect of the TVA and the REA, and indeed of the movement towards rural electrification, was the local organizations that made electric power a reality for their neighbors. These grassroots efforts to electrify American farms also solidified the connection between rural and urban areas that was facilitated by electrification.

The local electrification cooperatives that complemented federal planning were often supported by scholars. Indeed, the early

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<sup>36</sup> Audra J. Wolfe, “‘How Not to Electrocute the Farmer’: Assessing Attitudes Towards Electrification on American Farms, 1920-1940,” *Agricultural History* 74 no. 2 (2000): 520.

<sup>37</sup> John Steele Gordon, *An Empire of Wealth: The Epic History of American Economic Power* (New York: HarperCollins, 2004), 345.

<sup>38</sup> Nye, *Electrifying America*, 317.

<sup>39</sup> Cannon, “Power Relations,” 35–36.

twentieth century had seen the development of academic fields that were useful in developing the agricultural sector. According to Phillips, “the field of land economics, along with agricultural economics in general, had emerged from the institutionalist school of political economy at the University of Wisconsin” amidst the conservation movement.<sup>40</sup> The division of Land Economics undoubtedly had a positive impact on conservation, as it “sponsored research and provided the leadership for the emerging land utilization movement.”<sup>41</sup> Given the relation between pioneering conservation and electrification programmes such as the Tennessee Valley Authority, it follows that the growth of academic research related to farming, such as agricultural science and land economics, also fueled the development of rural electrification efforts. For instance, the establishment of the North Carolina Rural Electric Authority, one month before Roosevelt created the REA, was directly related to education. Not only did the state sponsor an educational campaign to promote the value of electrical farm equipment, but as Saloutos writes, the University of North Carolina helped establish one of the first electrical cooperatives, a model which would become a staple of electrification under the New Deal.<sup>42</sup> The creation of the Cleveland County cooperative in 1925 was an effort of both farmers and “members of the Department of Rural Economics and Sociology at the University of North Carolina.”<sup>43</sup> The university had founded the department of Rural Social Economics with the objective of using “the talents of its faculty and students to assist the public with its economic and social needs.”<sup>44</sup> While the emergence of agricultural economics and sociology as academic fields facilitated electrification in North Carolina, it also gave this local initiative political weight on a national scale. As Clayton Brown argues, “North Carolina’s long-term activities played a part in Roosevelt’s decision to create a federal agency.”<sup>45</sup>

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<sup>40</sup> Phillips, *This Land*, 38.

<sup>41</sup> *Ibid.*, 38.

<sup>42</sup> Saloutos, *American Farmer*, 209–10.

<sup>43</sup> *Ibid.*, 210.

<sup>44</sup> D. Clayton Brown, “North Carolina Rural Electrification: Precedent of the REA,” *The North Carolina Historical Review* 59 no. 2 (1982): 110.

<sup>45</sup> *Ibid.*, 109.

Rural electrification was therefore not only administered from the top down, but also from the bottom up. Before the creation of the TVA and REA, electrical cooperatives had been operating to provide electric power to farmers, but only on a small scale. As Saloutos explains, these pre-New Deal cooperatives were “few in number, isolated, and rendered service usually to the most successful farmers in a prosperous area.”<sup>46</sup> The federal government complemented these grassroots cooperatives through New Deal agencies. Where cooperatives often lacked funds to provide electricity on a larger scale, Cannon has shown that the New Deal financed efforts “to develop infrastructure, generate electricity, and promote economic stability” in western farming communities.<sup>47</sup> The trial run of the Tennessee Valley Authority’s collaboration with cooperatives took place in Alcorn County, Mississippi, which was typical of the “depression cotton-growing South.”<sup>48</sup> The Alcorn Coop was proof that rural electrification was economically viable as a federal programme: this pioneering initiative demonstrated that farmers made use of electrical equipment, thus helping to “offset the extra cost of building rural lines.”<sup>49</sup> Moreover, the TVA’s collaboration with local distributors provided a model that would inform the operation of rural electrification under New Deal programmes.

Local autonomy was a key factor in the development of this model. As mentioned previously, farmers feared that the TVA and the REA would mean an unwelcome increase in federal control over their daily activities. As David Nye notes that “electrification in general was translated into civic pride,”<sup>50</sup> it follows that a certain amount of autonomy in the implementation and provision of electricity was also desirable among rural communities. In fact, one of the organisers of a rural electric cooperative in Wyoming, “believed that ‘the biggest hurdle’ he and other organizers faced was the fear of government intervention.”<sup>51</sup> However, Cannon argues that throughout the

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<sup>46</sup> Saloutos, *American Farmer*, 210.

<sup>47</sup> Cannon, “Power Relations,” 135.

<sup>48</sup> Saloutos, *American Farmer*, 211.

<sup>49</sup> *Ibid.*, 212.

<sup>50</sup> Nye, *Electrifying America*, 18.

<sup>51</sup> Cannon, “Power Relations,” 136.

electrification process, the westerners he researched were not “passive objects of state power.”<sup>52</sup> These rural citizens engaged with the federal government by participating in New Deal electrification programmes and applying for loans. Cannon writes that “although REA programmes were planned and administered in Washington, D.C., western residents rather than New Deal administrators initiated most of the region’s rural electrification projects.”<sup>53</sup>

Thus, rural electrification during the Great Depression represented a space in which local leaders from rural communities could connect and collaborate with the federal government. This collaboration was illustrated in *Power and the Land*, in a scene that shows farmers coming together with REA officials to plan and implement their line construction project. This frame reflects the realities of the REA’s operations. In his explanation of the REA’s development, Nye notes that “the agency decided it was feasible to foster grassroots organizations that would build their transmission lines and operate an electrical service themselves.”<sup>54</sup> While *Electrification Comes to the Farm* had been produced to promote a government programme, local autonomy was emphasized in the script. The description of the REA’s role is mostly limited to providing funds, while decision-making procedures appear to rest in the hands of local leaders: “the REA loans money at low interest rates for line construction, and where necessary, for generating plants, to the cooperatives set up by the farmers in the community.”<sup>55</sup> The narrator assures the audience that when the loan was paid back through electric bills, “you and your neighbors will own your own electric system,” further highlighting the apparent importance of local leadership in the implementation of this federal electrification programme.<sup>56</sup>

Kline’s study of *Power and Land* concludes that in a bid to promote involvement in electrification programmes, the film presents an overly simplified view of electric cooperatives, for example it does

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<sup>52</sup> Ibid., 135.

<sup>53</sup> Ibid., 138.

<sup>54</sup> Nye, *Electrifying America*, 317.

<sup>55</sup> Ivens, *Power and the Land*.

<sup>56</sup> Ibid.

not mention the months or years it might take to set up a cooperative and obtain a federal loan.<sup>57</sup> Brian Cannon's research on the electric cooperatives of the West also questions just how well the cooperative model integrated rural citizens into the political mainstream, despite demonstrating to what extent rural electrification relied on local grassroots efforts. Provisions were made to ensure a locally elected electrification board would not become a "puppet of the REA," but criticisms were still levelled against the agency for its heavy involvement in the hiring process for management positions.<sup>58</sup> As Cannon explains, "members of some western boards once again found their local orientation and interests pitted against the broader, national orientation of REA administrators."<sup>59</sup> While many Westerners welcomed the progress that was made possibly by federal electrification programmes, many accused the New Deal of "[paying] homage to democracy while transferring power from western communities to bureaucrats in Washington."<sup>60</sup> While the inclusion of farmers into the American political process through their grassroots involvement in the TVA and the REA seems to be limited, the electrification process undoubtedly fostered a connection between the federal government and local leaders in rural areas.

## Conclusion

As *Power and the Land* demonstrates, New Deal electrification programmes allowed the American farmer to be integrated into the mainstream economic, cultural, and political structures of their country. After the precedent for government-provided utilities was set notably by the state of Pennsylvania, Roosevelt's federal government connected with citizens in rural areas through the Tennessee Valley Authority and the Rural Electrification Administration. *Power and the Land*, as one aspect of the REA's work, mirrored the New Deal electrification programmes' emphasis on the interdependence of urban and rural economies, and the way they enabled rural dwellers to make up the lag

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<sup>57</sup> Kline, *Consumers in the Country*, 194–195.

<sup>58</sup> Cannon, "Power Relations," 145–7.

<sup>59</sup> *Ibid.*, 151.

<sup>60</sup> *Ibid.*, 158.

in access to modern technologies and thus be on an even socio-cultural footing with city-residing Americans. The increased interaction between citizens and federal government evident in the implementation of these New Deal programmes was complemented by local electrification initiatives. The electrical cooperative model, which developed at a grassroots level but engaged with New Deal electrification efforts, also demonstrated an integration of rural citizens into mainstream political processes. Considered within the context of New Deal policies, the government-produced documentary film *Power and the Land* sheds light on the achievements made by rural electrification programmes as they sought to bridge the chasm between rural and urban America.

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## Validity of Using Social Network Sites in Employment Selection

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### Abstract

This study addresses the use of social network sites (SNSs) in employment selection in an organisational context. The aim of this study was to investigate whether employment selection personnel could accurately predict job relevant characteristics from SNSs.

Personality self-reports from the Big Five Inventory, intelligence test scores from the Alice Heim 5 and screenshots of Facebook profiles were obtained from six SNS owners (3 male and 3 female). Sixty-four employment selection personnel (18 male and 46 female) viewed these screenshots of Facebook profiles via an online survey and rated everyone's personality and intelligence. T-tests were conducted to determine if raters could accurately predict personality and intelligence from Facebook.

The results suggested that the employment selection personnel could accurately predict three of the Big Five personality traits; conscientiousness ( $p < 0.01$ ), extraversion ( $p < 0.001$ ) and openness ( $p < 0.001$ ) of the SNS owners. Employment selection personnel were unable to accurately predict neuroticism, agreeableness, or intelligence.

The findings suggest that SNSs may provide useful information for employment selection in organisational contexts. However, there may be legal and ethical implications that need to be taken into consideration when using this practice. Employers are encouraged to set out guidelines to govern these practices.

**Keywords:** social network sites, personality, intelligence, employment, social media.

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**Abbreviations:**

Big Five Inventory (BFI)

Social Network Sites (SNSs)

Human Resource (HR)

Five Factor Model (FFM)

**Introduction**

The increase in internet users in recent decades is of staggering proportions.<sup>4</sup> Social network sites, non-existent just years ago, now attract hundreds of millions of users, representing a new stage in the evolution of the internet. These sites are now fundamental parts of social interactions.<sup>5</sup> As SNSs continue to flourish, change in practice by Human Resource (HR) professionals have occurred. The line between private and public lives has blurred, as employers begin to tap into this online information to learn more about potential employees.<sup>6</sup> As the use of SNSs have entered the business landscape, this necessitates research regarding their validity in the screening process. Without evidence of the relevance of this information, conclusions drawn are unsubstantiated and could result in legal repercussions.<sup>7</sup>

**Social Network Sites**

SNSs are online communities that enable members to communicate with one another. The most popular sites include Facebook, Instagram, LinkedIn and Twitter.<sup>8</sup> The study presented here focuses on Facebook, as it is at present the world's most popular SNS with over two billion

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<sup>4</sup> Laura E. Buffardi and Keith W. Campbell, "Narcissism and Social Networking Web Sites," *Personality and Social Psychology Bulletin* 34, no. 10 (2008): 1303 – 1314.

<sup>5</sup> Mitja D. Back et al., "Facebook Profiles Reflect Actual Personality, Not Self-Idealization," *Psychological Science* 21, no. 3 (2010): 372-74.

<sup>6</sup> Donald H. Kluemper, Peter A. Rosen, and Kevin W. Mossholder, "Social Networking Websites, Personality Ratings, and the Organizational Context: More Than Meets the Eye?1," *Journal of Applied Social Psychology* 42, no. 5 (2012): 1143 – 1172.

<sup>7</sup> Donald H. Kluemper and Peter A. Rosen, "Future Employment Selection Methods: Evaluating Social Networking Web Sites," *Journal of Managerial Psychology* 24, no. 6 (2009): 567 – 580.

<sup>8</sup> John S. Liu, Mei Hsiu-Ching Ho, and Louis Y. Lu, "Recent Themes in Social Networking Service Research," *PLOS ONE* 12, no. 1 (2017): e0170293.

monthly active users.<sup>9</sup> Facebook digitally maps an individual's connections, providing a user-friendly forum where users can effortlessly share information. Facebook allows users to limit access of their profiles to certain people. However, information can easily go beyond its intended audience, as depending on the privacy settings, friends of friends, or the public, may have access to full profiles.<sup>10</sup>

### **SNSs in employment selection**

Survey research has reported increasing numbers of employers conducting SNS checks. The Global Interviewing Practices and Perceptions Survey revealed that over a quarter of global employers surveyed view SNSs before hiring.<sup>11</sup> In 2009, a survey of over 2,600 hiring managers reported that 46% view SNSs, a 109% increase on the 22% reported in 2008. Of those who used SNSs, 35% reported viewing information which ruled out the applicant, such as photos including alcohol or drugs, poor communication skills, lying about qualifications or bad-mouthing former employers.<sup>12</sup> Alternatively, 18% reported viewing positive information such as professionalism and effective communication skills, which encouraged a decision to hire.<sup>13</sup>

Despite the growing utilisation of this screening method, there is a lack of evidence on whether SNSs are valid predictors of indicators of job performance. Kluemper and Rosen found observer accuracy for personality and intelligence from 378 judge ratings.<sup>14</sup> However, this analysis only required judges to distinguish high from low performers. It also was not set in an organisational context; thus no firm conclusions

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<sup>9</sup> "Facebook", Facebook website, accessed on July 2, 2017, <http://www.facebook.com>.

<sup>10</sup> Carly Brandenburg, "The Newest Way to Screen Job Applicants: A Social Networkers Nightmare," *Federal Communications Law Journal* 60, no. 3 (2008): 597 – 626.

<sup>11</sup> "Social networking sites used to check out job applicants," Personnel Today, accessed on February 23, 2012, <http://www.personneltoday.com/articles/2009/03/17/49844/social-networking-sites-used-to-check-out-applicants.html>.

<sup>12</sup> "Nearly Half of Employers Use Social Networking Sites to Screen Job Candidates," Career builder, accessed February 20, 2012, <http://thehiringsite.careerbuilder.com/2009/08/20/nearly-half-of-employers-use-social-networking-sites-to-screen-job-candidates/>.

<sup>13</sup> Ibid.

<sup>14</sup> Kluemper and Rosen, "Future Employment Selection Methods: Evaluating Social Networking Web Sites." 567 – 580.

could be drawn. Until accuracy is established, caution should be taken in the use of SNSs in hiring decisions.

### **Personality and job performance**

Until the 1990s personality was considered irrelevant in employment selection.<sup>15</sup> However, with increasing confidence in the five-factor model (FFM) of personality, more optimistic views have surfaced.<sup>16</sup> It has been suggested past research was ambiguous due to lack of definitive personality framework.<sup>17</sup> Meta-analyses by Barrick and Mount and Tett, Jackson and Rothstein have suggested the validity of the FFM of personality for use in employment selection.<sup>18</sup>

The FFM is now the most accepted personality framework and so was deemed most appropriate for use in this study.<sup>19</sup> It consists of five personality dimensions; extraversion, neuroticism, agreeableness, openness and conscientiousness. There are varying definitions of each of the constructs. Extraversion may be referred to as the degree to which an individual is active, sociable, and talkative. A person scoring high on agreeableness may be cooperative, courteous, forgiving, tolerant and trusting. Conscientiousness refers to the degree to which a person is careful, organised, planful, and goal oriented. Openness may refer to a person who is open minded, curious, cultured and original. Lastly, a person scoring high on neuroticism may be angry, anxious, depressed, insecure or worried.<sup>20</sup>

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<sup>15</sup> Gregory Hertz and John Donovan, "Personality and Job Performance: The Big Five Revisited," *J Applied Psychology* 85, no. 6 (2000): 869 – 879.

<sup>16</sup> Ibid; John Digman, "Personality Structure: Emergence of the Five-Factor Model," *Annual Review of Psychology* 41, no. 1 (1990): 417 – 440; Orlando Behling, "Employee Selection: Will Intelligence and Conscientiousness Do the Job?" *Academy of Management Executive* 12, no. 1 (1998): 77 – 86.

<sup>17</sup> Barrick and Mount, "The Big Five Personality Dimensions and Job Performance: A Meta-Analysis," 1 – 26.

<sup>18</sup> Ibid; Robert P. Tett, Douglas N. Jackson, and Mitchell Rothstein, "Personality Measures as Predictors of Job Performance: A Meta-Analytic Review," *Personnel Psychology* 44, no. 4 (1991): 703 – 742.

<sup>19</sup> Hertz and Donovan, "Personality and Job Performance: The Big Five Revisited," 869 – 879.

<sup>20</sup> Robert R. McRae and Oliver P. John, "An Introduction to the Five-Factor Model and Its Applications," *Journal of Personality* 60, no. 2 (1992): 175 – 215.

In the research, conscientiousness has consistently been reported as the personality dimension most predictive of job performance across all occupations.<sup>21</sup> Extraversion, agreeableness and neuroticism were found to predict performance in certain occupations.<sup>22</sup>

### Personality and SNS research

Research has suggested that SNSs manifest aspects of users' personalities.<sup>23</sup> There is potential to argue that the big five traits might represent themselves on SNSs. For example, those low in conscientiousness might show a lack of discipline regarding controlling their online behaviour or have inappropriate conversations. Those high in extraversion could show this via their substantial number of friends or a high level of regular interactions with others on the site.

Vazire and Gosling found relationships between observer ratings of personality based on personal websites and owner's self-reported personality across all five dimensions, reporting strongest relationships for extraversion and openness, and lowest for agreeableness and neuroticism.<sup>24</sup> Marcus, Machilek, and Schutz reported convergence of self and observer ratings based on SNS.<sup>25</sup> Openness, conscientiousness and extraversion were most accurately predicted, though much lower overall accuracy was reported compared

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<sup>21</sup> Barrick and Mount, "The Big Five Personality Dimensions and Job Performance: A Meta-Analysis," 1 – 26; Behling, "Employee Selection: Will Intelligence and Conscientiousness Do the Job?" 77 – 86; Jesus F. Salgado, "The Five Factor Model of Personality and Job Performance in the European Community," *J Appl Psychol* 82, no. 1 (1997): 30 – 43.

<sup>22</sup> Behling, "Employee Selection: Will Intelligence and Conscientiousness Do the Job?" 77–86;

<sup>23</sup> Bernd Marcus, Franz Machilek, and Astrid Schutz, "Personality in Cyberspace: Personal Web Sites as Media for Personality Expressions and Impressions," *Journal of Personality and Social Psychology* 90, no. 6 (2006): 1014 – 1031; Simine Vazire and Samuel D. Gosling, "E-Perceptions: Personality Impressions Based on Personal Websites," *J Pers Soc Psychol* 87, no. 1 (2004): 123 – 132.

<sup>24</sup> Ibid.

<sup>25</sup> Marcus, Machilek, and Schutz, "Personality in Cyberspace: Personal Web Sites as Media for Personality Expressions and Impressions," 1014-31.

to previous research.<sup>26</sup> More recently, Back et al. found associations between SNS observer scores and true scores of personalities.<sup>27</sup> Consistent with the research, strongest accuracy was found for extraversion, openness and conscientiousness with lowest for neuroticism.

From the limited evidence available, it can be suggested that personality may be accurately predicted from SNSs. Although most of these studies were conducted in lab settings, they give preliminary evidence to expect accurate estimates of personality from SNSs. Using SNSs to predict personality has a theoretical basis in the realistic accuracy model (RAM).<sup>28</sup> This theory stipulates that accuracy is improved when the information provided is rich, and portrayed in a representative manner to convey consistent behavioural tendencies. In line with past research and the tenets of the realistic accuracy model theory, it could be suggested that the information found on SNSs is rich enough to allow accurate predictions of personalities. Thus, the use of SNSs to measure personality may be viable.

### **Intelligence and job performance**

Since the beginning of research on personnel selection, intelligence has been named as one of the biggest predictors of job performance.<sup>29</sup> Only one previous study has investigated whether intelligence can be predicted from SNSs.<sup>30</sup> Observer accuracy was found however, as previously mentioned, this study was not set in an organisational context. Even still, it provides an indication that the prediction of intelligence may be viable in the SNS context.

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<sup>26</sup> Vazire and Gosling, "E-Perceptions: Personality Impressions Based on Personal Websites," 123 – 132.

<sup>27</sup> Back et al., "Facebook Profiles Reflect Actual Personality, Not Self-Idealization," 372 – 374.

<sup>28</sup> David C. Funder, "On the Accuracy of Personality Judgment: A Realistic Approach," *Psychological Review* 102, no. 4 (1995): 652 – 670.

<sup>29</sup> Behling, "Employee Selection: Will Intelligence and Conscientiousness Do the Job?" 77 – 86.

<sup>30</sup> Kluemper and Rosen, "Future Employment Selection Methods: Evaluating Social Networking Web Sites," 567 – 580.

## **Aims**

The aim of this study was to establish the validity of using social network sites in the screening process assessing whether employment selection personnel could accurately predict personality and intelligence based solely on viewing SNSs.

Two hypotheses were derived from the research question;

*H1: Employment selection personnel assessing individual's personality and intelligence via SNSs are able to accurately predict true scores of personality and intelligence.*

*H2: Employment selection personnel assessing individual's personality and intelligence via SNSs are able to distinguish between individuals who are high on each characteristic from those who are low on that characteristic.*

Given the information available, it is predicted that raters will be able to accurately determine the big five personality traits and intelligence from SNSs, with highest accuracy ratings expected for openness, conscientiousness and extraversion, and lowest for agreeableness and neuroticism.

## **Methods**

SNS of six participants were selected. Screenshots of these individual's SNS were taken. HR personnel involved in employment selection were then surveyed to rate their perception of each person's personality and intelligence after viewing each site. Ethical approval was received from the School of Psychology Research Ethics Committee.

### **1. Participants**

#### **1.1. Facebook profile owners.**

A purposeful sample of six participants (three male, three female) were chosen from a list of volunteers recruited via email based on their availability. Participants ranged in age from 21-26 years ( $M=23$ ,  $SD=2.09$ ). Four of the six SNS owners were final year college students, while two had already entered their professional careers with backgrounds in healthcare/medical ( $n=2$ ), commerce ( $n=2$ ), law ( $n=1$ )

and languages ( $n=1$ ). All reported usage of Facebook at least once a day, while four of the participants reported usage several times daily. All gave informed consent to have screenshots of their Facebook site taken.

## 1.2. Raters

Raters were 64 employment selection personnel (18 male, 46 female) from Irish companies, recruited via email. The person completing the survey needed to be responsible for hiring decisions in that company. There were no eligibility criteria for type of company. All participating companies took part on a voluntary basis and will remain anonymous. Half the companies were small (less than 50 employees), 16% were medium (less than 250 employees) while 34% of companies were large (250+ employees). Of the participating companies, the majority were from the business professional sector (34%), education (12%), 'other' (14%), finance (11%), and medical (8%). Other participating raters classed the company as retail, telecommunications, advertising, consulting, and internet.

## 2. Materials

### 2.1. Personality Measure

SNS owners completed the 44-item Big Five Inventory (BFI),<sup>31</sup> a psychometrically robust self-report measure designed to measure the Big 5 dimensions of personality.<sup>32</sup> Alpha reliabilities for the BFI typically range from .75 - .80, averaging .80. Three-month test-retest reliabilities average .85.<sup>33</sup>

The scale measures the dimensions of neuroticism, conscientiousness, agreeableness, openness and extraversion, with each consisting of seven to ten items each. Participants were asked to report the extent to which each characteristic applied to them using a five

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<sup>31</sup> Oliver John and Sanjay Srivastava, "The Big-Five Trait Taxonomy: History, Measurement and Theoretical Perspectives.," in *Handbook of Personality: Theory and Research*, ed. L. Pervin and O.P. John (New York: Guilford Press: 1999).

<sup>32</sup> Robert R. McCrae and Alexander Weiss, "Observer Ratings of Personality," in *Handbook of Research Methods in Personality Psychology*, ed. R.C. Fraley, W. Robins, and R.F. Krueger (New York: Guilford Press: 2007).

<sup>33</sup> John and Srivastava, "The Big-Five Trait Taxonomy: History, Measurement and Theoretical Perspectives."

point Likert-type scale ranging from 1 (*disagree strongly*) to 5 (*agree strongly*). Items included; “*is talkative*” (extraverted), “*is depressed, blue*” (neuroticism), “*does things efficiently*” (conscientious), “*has a forgiving nature*” (agreeableness) and “*is curious about many different things*” (openness). Tests were scored according to BFI guidelines. To allow for a simpler rating system for the raters, each SNS owner’s scores were transferred to a score out of five.

## 2.2. Intelligence measure

The Alice Heim 5 intelligence test (AH5) is a test of general intelligence, designed for use with selected, highly intelligent adults, including potential entrants to university or graduates.<sup>34</sup> This test was selected as it was freely available at the university and is recommended as suitable for a university/graduate population. Alpha levels were satisfactory with test-re-test reliabilities of .84 as reported in the literature.<sup>35</sup>

The test has two parts, both consisting of 36 multiple-choice questions. The test is administered on pen-and-paper format. The first comprises of verbal and numerical problems, and the second consists of problems in diagrammatic form. Both sections are preceded by a set of sample questions. Tests were scored according to AH5 user guidelines. Test performance is expressed in one overall score, with a maximum possible score of 72. Participant scores were transformed into percentage format.

## 1.3. SNS screenshots

Two screenshots of each site owners Facebook page was taken; one of their “wall” and one of their information page. The wall is the major content area, consisting of messages posted by the user and their friends. It also includes pictures, videos and links to other sites. The information page includes activities, interests, favourite quotations, books, films, TV shows, music, educational information and current or past employers.

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<sup>34</sup> Alice Heim, *Ah5 Group Test of High-Grade Intelligence: Manual*. (London: NFER Publishing, 1968).

<sup>35</sup> Ibid.

## **Procedures**

The study involved two phases. In the first phase, self-report measures of personality and intelligence were obtained from six SNS owners using the BFI and the AH5. In the second phase, employment selection personnel viewed SNSs via online survey and recorded their impressions of each individual's personality and intelligence.

### **Phase One**

Six participants were individually asked to come to a meeting with the researcher. Participants were told of the nature of the study at this meeting to avoid alteration of Facebook profiles prior to meeting. Upon giving informed consent and answering a set of demographic questions, measures of intelligence and personality were obtained from each individual using the BFI and the AH5. Each individual was asked to sign into their Facebook account, so screenshots of their Facebook wall and information page could be taken. Participants were informed that employment selection personnel would view their SNS and report their impressions of it. Each volunteer was given the opportunity to change or remove the name on their Facebook profile if they wished.

### **Phase Two**

A survey was constructed using SurveyGizmo, and was emailed to HR departments of Irish companies. The survey instrument can be seen in appendix A. In order to be eligible, participants were required to be responsible for employment selection in the company. Eligible participants were directed to a page containing information about the study. Upon giving consent, confirming responsibility for employment selection and completing a set of demographic questions (appendix A), participants were given the following set of instructions:

*"You will now be presented with six Facebook Profiles, each individual's Facebook information page and wall will be shown. Please take a few moments to view each one. After viewing each profile, you will be asked to give an estimate of the individual's personality and intelligence".*

Participants were first asked to rate how applicable each personality trait was to each individual on a five-point scale (where 5 = greatly applies and 0 = does not apply at all). Decimal answers were permitted. A description of each personality dimension was provided.

Due to the difficult nature of the intelligence test used, extra care was taken in the phrasing of this question. Raters were informed that “the test administered on this individual was a test for above average intelligence.” They were provided with percentage criteria for A-E Grade intelligence as follows: A Grade (60-100%), B Grade (51-58%), C Grade (40-50%), D Grade (33-39%), E Grade (0-32%) as dictated in the test manual. First they were asked what grade they would apply to the individual (A-E). Second, they were asked what percentage (within this grade) they would apply to the individual. Data collection was completed automatically on SurveyGizmo and was later transferred to SPSS for analysis.

## Results

61% of HR personnel reported use of SNSs in the employment selection process when recruiting applicants for a position, with a quarter having used Facebook in particular. Approximately 73% respondents reported that they would consider using Facebook to screen candidates in future, while 27% reported they would not. The mean percentage of total recruitment reported as being screened via SNSs was 29% ( $SD = 36\%$ ).

*Hypothesis 1 (H1) – Employment selection personnel could accurately predict true intelligence and personality scores.*

In order to test H1, accuracy was determined for each of the six dimensions (conscientiousness, openness, agreeableness, neuroticism, extraversion and intelligence). To obtain an index of accuracy independent of the idiosyncrasies of any single rater or site owner, difference scores were computed. For each dimension, the difference between estimated scores and true score was calculated. As there were six individuals, this was done six times for each dimension. The six individual difference scores for each dimension were then computed into one overall variable of average difference scores for that dimension.

One sample t-tests were conducted on the overall difference scores for each of the six dimensions to determine whether or not the differences were significant to zero. Statistical analysis revealed that the differences found on three of the six dimensions were significant. Employers were reported to be able to accurately predict extraversion ( $M=.09$ ,  $SD=.74$ );  $t(63)=-.98$ ,  $p>.05$ ,  $d=.01$ , openness ( $M=.1$ ,  $SD=.95$ );  $t(63)=.85$ ,  $p>.05$ ,  $d=.1$ , and conscientiousness ( $M=.05$ ,  $SD=.85$ );  $t(63)=-.5$ ,  $p>.05$ ,  $d=.05$ .

Neuroticism ( $M=.8$ ,  $SD=.87$ ) was found to be weakly predicted by raters,  $t(63)=-7.32$ ,  $p<.001$ ,  $d=.92$ . Raters were even less capable of predicting agreeableness ( $M=-.86$ ,  $SD=.84$ ) from SNSs,  $t(63)=-8.16$ ,  $p<.001$ ,  $d=1.02$ . Intelligence ( $M=12.33$ ,  $SD=8.79$ ) was least accurately predicted by raters,  $t(63)=11.23$ ,  $p<.001$ ,  $d=1.4$ .

Employers could accurately predict extraversion ( $MD=.09$ ), conscientiousness ( $MD=.05$ ), and openness ( $MD=.1$ ), but could not accurately predict agreeableness ( $MD=.86$ ) and neuroticism ( $MD=.8$ ). The average mean difference for intelligence was 12.33.

*Hypothesis 2 (H2) – Employment selection personnel could accurately distinguish between high and low scorers on each dimension.*

In order to test H2, a high-low analysis on score estimates was conducted. For each of the six dimensions, the individual with the highest and the lowest true score were selected for analysis.

Significance testing was done by means of paired samples t-tests with rater estimates of these two (high and low) individuals as the units of analysis. This was done for each of the six dimensions. Results of the t-tests are shown in table I.

Table I. High and Low True Scores, Mean Estimates, and Paired samples t-tests

	High Score		Low Score			
Dimension	TS	RM	TS	RM	T	d
Conscientiousness	3.44	3.35	2	2.91	3.01**	.38
Agreeableness	4.55	3.05	3.4	2.92	.74	.09
Openness	3.5	3.05	2.9	3.51	-3.27**	.4
Neuroticism	3.88	1.57	1.38	1.34	1.4	.17
Extraversion	4.88	4.46	2.38	3.45	7.41***	.92
Intelligence	57%	60%	29%	66%	-3.02**	.37

Notes: \*p<0.05; \*\*p<0.01; \*\*\*p<0.001 TS=Subject True Score; RM=Rater Mean Score; T=T-value; d=Cohen’s d; effect sizes (d= .2,small; .5, med; .8, large).

As can be seen from table I, raters could distinguish between high and low scores for conscientiousness ( $M = .44$ ,  $SD = 1.16$ );  $t(63) = 3.01$ ,  $p < 0.01$ ,  $d = .38$ . Significant results were also found for openness ( $M = .46$ ,  $SD = 1.13$ );  $t(63) = -3.27$ ,  $p < 0.001$ ,  $d = .4$ , extraversion ( $M = 1$ ,  $SD = 1.09$ );  $t(63) = 7.41$ ,  $p < 0.001$ ,  $d = .92$  and intelligence ( $M = 6$ ,  $SD = 15.82$ );  $t(63) = -3.02$ ,  $p < 0.01$ ,  $d = .37$ .

Significant results were not found for the other personality dimensions. Employers were not able to distinguish between high and low scorers for agreeableness ( $M = .13$ ,  $SD = 1.44$ );  $t(63) = .74$ ,  $p > 0.05$ ,  $d = 0.09$  or neuroticism ( $M = .23$ ,  $SD = 1.31$ ),  $t(63) = 1.41$ ,  $p > 0.05$ ,  $d = .17$ . High and low extraversion scores were most accurately distinguished by raters ( $d = .92$ ). High and low openness ( $d = .4$ ) and conscientiousness ( $d = .38$ ) scores were also accurately predicted demonstrating small effect sizes.

For intelligence and openness, though raters were able to distinguish between high and low scorers, they rated the lower scoring participant above the high scoring participant. For intelligence, the high scoring individual's rater mean was 60% while the low scoring individual's rater mean was 66%. Concerning openness, high rater mean was 3.05, while low rater mean was 3.51.

## Discussion

This study offers insight on the validity of using social network sites in the screening process, assessing whether employment selection personnel could accurately predict personality and intelligence, job relevant characteristics, based solely on viewing SNSs.

In support of H1, and as predicted, observer accuracy was found for three of the Big Five dimensions of personality. Extraversion was most accurately predicted, followed by conscientiousness and openness. However, raters were unable to accurately predict neuroticism and agreeableness. Raters could not accurately predict intelligence from SNSs.

To investigate H2, a high-low analysis was carried out to determine if raters could distinguish between high and low scorers. Raters could accurately distinguish between high and low scorers for conscientiousness, openness, extraversion and intelligence. Consistent

with the first H1, raters could not distinguish between high and low neuroticism or agreeableness scores. Results reported for intelligence and openness indicated that employers could distinguish between high and low scores. Upon closer analysis, it was found that they had completely misconstrued the scores, with the low scoring individual being rated above the high scoring individual. This is a significant finding as intelligence could not be accurately predicted. Regarding openness, the range between SNS owners highest and lowest score was only 0.6. Thus, the high – low method used may not have been suitable for such a small range.

These results provide potential indication that employment selection personnel may be able to accurately determine some personality traits from SNSs. Considering that raters had no contact with SNS owners except viewing the sites, these ratings are substantial and warrant further investigation.

### Results in light of past research

The findings from this study converge to a considerable extent with past research. Surveys have reported the increasing use of SNSs in the hiring process.<sup>36</sup> Prior to this study, little was known about the use of SNSs among Irish companies. In this study, 25% reported using Facebook to screen job applicants, consistent with the 25% reported among global employers.<sup>37</sup> Over 60% reported using other SNSs to screen, including LinkedIn, Twitter and FourSquare. On average, respondents reported that nearly 30% of total recruitment was being screened via SNSs. Over 70% of respondents reported that they would consider using Facebook to screen in the future, highlighting the need for research of this increasingly common practice.

Prior to this research, Klumper and Rosen was the first study to investigate the validity of using SNSs to predict personality and intelligence.<sup>38</sup> They found that raters could distinguish between high

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<sup>36</sup> "Nearly Half of Employers Use Social Networking Sites to Screen Job Candidates."; "Social networking sites used to check out job applicants".

<sup>37</sup> Ibid.

<sup>38</sup> Klumper and Rosen, "Future Employment Selection Methods: Evaluating Social Networking Web Sites," 567-580.

and low scorers on all dimensions of personality and intelligence. In the present study, raters were able to distinguish between high and low on only two personality traits. Given the scarcity of research regarding intelligence this contradictory finding is not surprising. More research is needed, and until firm reliability is established, employers should exercise extreme caution in using SNSs.

The results corroborate much of the personality research, finding highest accuracy for openness, extraversion and conscientiousness with poorer accuracy being reported for neuroticism and agreeableness.<sup>39</sup> The weak findings for neuroticism coincide with reports that neuroticism is very difficult to detect in zero acquaintance settings.<sup>40</sup> It is of potential importance that conscientiousness was accurately predicted from SNSs as some researchers have reported it as the personality dimension most predictive of job performance.<sup>41</sup>

As previously stated, other forms of personality ratings have been reported as strong indicators of job performance. Barrick, Patton, and Haugland developed an interview which could assess three of the Big Five personality dimensions.<sup>42</sup> Similarly, in this study, three personality dimensions were successfully predicted from SNSs. Thus, SNSs may be seen as a viable approach for measuring personality in the employment selection context, going beyond the predominant self-report approach. However as mentioned above, extreme caution must be taken in this regard. The Realistic Accuracy Model may underlie the ability of raters to accurately predict three of the Big Five traits.<sup>43</sup>

These findings provide some initial indication for the use of SNSs as a predictor of certain personality traits. However, it may not

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<sup>39</sup> Back et al., "Facebook Profiles Reflect Actual Personality, Not Self-Idealization," 372 - 374; Vazire and Gosling, "E-Perceptions: Personality Impressions Based on Personal Websites," 123 - 132.

<sup>40</sup> Funder, "On the Accuracy of Personality Judgment: A Realistic Approach," 652-670.

<sup>41</sup> Barrick and Mount, "The Big Five Personality Dimensions and Job Performance: A Meta-Analysis," 1 - 26; Behling, "Employee Selection: Will Intelligence and Conscientiousness Do the Job?" 77 - 86; Salgado, "The Five Factor Model of Personality and Job Performance in the European Community," 30 - 43.

<sup>42</sup> Murray R. Barrick, Gregory K. Patton, and Shanna N. Haugland, "Accuracy of Interviewer Judgments of Job Applicant Personality Traits," *Personnel Psychology* 53, no. 4 (2000): 925 - 951.

<sup>43</sup> Funder, "On the Accuracy of Personality Judgment: A Realistic Approach," 652 - 670.

provide accurate predictor of intelligence which needs to be considered. Use of SNSs could be useful since these assessments take only a fraction of the time compared with other selection methods such as psychometric testing. However, acting solely on information obtained from an SNS without verification from another source is not warranted at this early stage and is a potential pitfall for HR department choosing to use this method.

### **Future research**

As this was the first study investigating this subject in an organisational context, more research embedded in a variety of organisational contexts is crucial for testing the validity of this screening method. Such studies could explore whether other well-established predictors of job performance such as self-efficacy or creativity can be predicted from SNSs.<sup>44</sup> Replications of this research, using larger sample sizes of SNS owners, could investigate other SNSs, particularly more professionally oriented sites, such as LinkedIn. Also, with applicants becoming increasingly aware of this new HR practice, future research could address the issue of the potential for socially desirable presentation on social network sites. It would also be interested to investigate why some elements of personality (e.g. extraversion, conscientiousness) seemed to be easier to pick up than others. For example, is extraversion more obvious to detect than agreeableness? Future research will help guide practitioners in how best, if at all, to use SNSs for HR decision making.

### **Limitations**

It is acknowledged this study is not without limitations. Firstly, the intelligence test used may have confounded the results. The AH5 is a test for individuals of above average intelligence.<sup>45</sup> The highest true score out of the six SNS owners was 57%. Even though extra caution

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<sup>44</sup> Victoria R. Brown and E. Daly Vaughn, "The Writing on the (Facebook) Wall: The Use of Social Networking Sites in Hiring Decisions," *Journal of Business and Psychology* 26, no. 2 (2011): 219 – 225; H. Kristl Davison, Catherine Maraist, and Mark N. Bing, "Friend or Foe? The Promise and Pitfalls of Using Social Networking Sites for HR Decisions," *Journal of Business and Psychology* 26, no. 2 (2011): 153 – 159.

<sup>45</sup> Heim, *Ah5 Group Test of High-Grade Intelligence: Manual*.

was taken in the phrasing of the question in the survey, making sure to highlight the difficult nature of the test and score norms for particular grades, it is possible that employers were led to consistently overestimate scores resulting in low scorers being rated higher than high scorers.

With the small sample selection of SNS owners, who do not encompass a broad spectrum of personality traits, caution must be taken as the findings may not be transferable to a general population. It is also questionable as to whether screenshots of Facebook profiles hold real-world applicability, as typically HR personnel would be able to scroll through the person's profile. However, due to the novelty of the research question, the analysis provides initial insight into whether personality and intelligence can be predicted from SNSs.

## **Conclusions**

The results of this preliminary study should not be used by organisations to support or reject the use of SNSs in employment selection. It must be stressed that although SNSs may provide some information relevant to job performance, results from this study show that half of the variables studied (agreeableness, neuroticism and intelligence) were judged inaccurately. The potential for legal liability is great considering the dearth of research regarding the validity of using SNSs to predict job relevant characteristics and the increasing utilisation of these sites by employers. There is potential for discrimination and legal liability, privacy rights violations and ethical issues associated with accessing job applicant's personal information. Companies should encourage the development of policies concerning the utilization of SNSs in job applicant screening, to safeguard against potential discrimination and legal liability and to ensure fair and uniform procedures for all applicants.

This study has evaluated the use of SNSs in employment selection, assessing the validity of using SNSs to measure job relevant characteristics. Research is lagging current HR practices. This research has taken a first step in highlighting the range of issues associated with the use of SNSs by HR personnel. The results showed that meaningful

inferences of some personality dimensions can be derived from visiting SNSs, while others along with intelligence were not accurately predicted. Based on the relative absence of research in this newly developing area, the most important implication of this research is for organisations to use SNSs with these issues in mind.

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## **Fashionable Sin and the Difficult Commandment: Examining Catholic Sexual Advice Pamphlets in Ireland, 1940-1970**

Cian Ó Néill<sup>1</sup>

### **Abstract**

Sexual immorality and the abandonment of Catholic values within a modernising society were major concerns for the Catholic Church in Ireland following the Second World War. The Catholic hierarchy set out to reaffirm the importance of Church teaching, and did so partly through the production on advisory pamphlets which intended to satisfy the curiosity of their flock regarding questions of sexuality and stress the danger of eternal damnation if one strays from the path. This paper studies these advisory pamphlets to evaluate their influence upon sexual attitudes and discourse within Ireland following the Second World War. This includes an analysis of the way in which the pamphleteers set out to protect Catholic values by not only denouncing the excesses of modern society, but also trying to control male sexual urges through a repression of female sexuality. This paper also implements a comparative approach, utilising literature published by the Church of Ireland to examine the extent to which these moral concerns crossed denominational lines.

### **Keywords:**

History of sexuality, Catholic Church, morality, Ireland.

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## Introduction

The Catholic Church established themselves as the arbiters of morality in the nascent Irish State, and continued on in this role for decades. Within this, the Church hierarchy took vocal positions on a diverse range of moral issues, from dancing to jazz, and wielded considerable influence over lawmakers and the population alike. At the root of these moralistic concerns was how to preserve Catholic values in the face of a perceived encroachment of sin being brought about by a modernising society, with sexual deviancy often at the core of these fears. Lobbying for new laws and fiery speeches from the pulpit denouncing fashionable sin were one way in which the Catholic hierarchy attempted to engage with the population. However, religious orders and Catholic publishers also produced a large number of educational pamphlets dealing with a broad range of issues from how to avoid overly long courtships to managing impure thoughts. These pamphlets constituted an important part of how the Catholic Church conveyed it's message to the population, and tried to strike a delicate balance between informing their flock regarding a key element of the moral teaching of the Church, while also avoiding sexual temptation through a form of pious ignorance.

For example, Dr Daniel Mageean, Lord Bishop of Down and Connor, when asked to increase the availability of sexual education for the youth within the diocese, responded that 'too much knowledge is both unnecessary and dangerous' and objected to 'any form of sex education which would...teach young people to safeguard themselves against the unfortunate consequences of acts that are morally wrong.'<sup>2</sup> Archbishop of Dublin, John Charles McQuaid also found the issue of sexual education a difficult one to address, believing that any public discussion of the female body to be distasteful.<sup>3</sup> These pronouncements establish the boundaries within which Catholic sexual teaching largely operated in post-war Ireland. It attempted to strike a delicate balance between informing their flock regarding a key element of the moral

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<sup>2</sup> Leanne McCormick, *Regulating sexuality: Women in twentieth century Northern Ireland* (Manchester and New York: Manchester University Press, 2009), 102.

<sup>3</sup> Diarmaid Ferriter, *Occasions of sin: Sex and society in modern Ireland* (London: Profile Books, 2009), 293-4.

teaching of the Church, while also avoiding sexual temptation through a form of pious ignorance grounded within Catholic morality. Advisory pamphlets constitute a key tool in this regard, usually written by priests to instruct and inform around acceptable sexual habits and attitudes in keeping with the moral doctrine of the Church. However, these publications are under-utilised in the scholarship of Irish sexuality. Bearing this lacuna in mind, this paper examines a selection of these pamphlets to evaluate their influence upon sexual attitudes and discourse within Ireland following the Second World War. This paper argues that these pamphlets not only tried to provide limited information on Christian sexuality to their flock, but also set out to reaffirm the importance of Catholic morality and the danger of sin to combat the perceived encroachment of a modernising society. Thus, the issue of sexuality became one of the battlegrounds for solidifying Catholic teaching as the barometer for society's moral standards, but in the process ignored many of the questions and issues being experienced by the Catholic population.

This paper is divided into four sections. Firstly, it examines the way in which pamphlets set out to preserve Catholic values through robust discussion of the dangers of sin and the importance of adhering to Church teaching and of controlling sexual urges to avoid compromising the inherent purity, which Catholics imbibed from God. Moving on from this is a discussion of the contrasts between the control of male and female sexuality. The pamphlets focus upon controlling female sexuality not only to maintain female purity, but also to combat the animalistic sexual desire of men. Married sexuality is also a feature within Catholic sexual advice pamphlets, not only as the ultimate goal for good Catholics, but also saw some tentative moves towards a liberalisation of Catholic sexual teaching. This section discusses the challenges, which sex within marriage posed to Catholic pamphleteers, and assesses the extent to which there was a recognition by the Catholic Church that their approach to sexuality needed to adapt. Finally, this paper offers a comparison between Catholic and Protestant pamphlets and examines the extent to which moral concerns crossed denominational lines.

### Shifting the focus

Examinations of sexuality have been slow to emerge within the cultural historiography of Ireland, with much of the work in this regard undertaken by sociologists and anthropologists.<sup>4</sup> While it is perhaps unfair to explain this lacuna, as suggested by Tom Inglis, as stemming from the shame and embarrassment surrounding sex having been lodged firmly within the psyches of Irish historians, it is difficult to ignore this inattention.<sup>5</sup> However, the recent works addressing this absence have largely been focussed on the issues of prostitution, venereal disease and sexual abuse, perhaps due to the abundance of archival evidence in this regard.<sup>6</sup> British historian Paul Ferris argued in this regard that 'the history of sex is written from the point of view of what went wrong, not how many people enjoyed it...it is the suffering that is spelt out.'<sup>7</sup> This conclusion is certainly true of much of the Irish historiography. For example, the title of Diarmaid Ferriter's *Occasions of Sin* is revealing of the approach taken to dealing with Irish sexuality within.<sup>8</sup> While he utilises some interesting sources, such as an engaging use of fiction, it is difficult to ignore the dominant focus upon sexual abuse and the more deviant sides of sexuality. The dominant themes of the book of sexual abuse, contraception, infanticide and abortion, as set out in the introduction, leave little space for a discussion of love, intimacy or companionship, and results in a rather monochromatic study of Irish sexuality. In an attempt to move beyond the despondent

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<sup>4</sup> See further, Conrad Arensberg and Solon Kimball, *Family and Community in Ireland* (Cambridge, MA, 1968); Alexander Humphreys, *New Dubliners; Urbanization and the Irish family* (London: Routledge, 1966); Tom Inglis, 'Origins and legacies of Irish prudery: Sexuality and social control in modern Ireland' in *Éire-Ireland*, xv, ii (2005); Tom Inglis, *Lessons in Irish sexuality* (Dublin: University College Dublin Press, 1998).

<sup>5</sup> Inglis, 'Origins and legacies of Irish prudery', 10.

<sup>6</sup> For example, Maria Luddy, *Prostitution and Irish society, 1800-1940* (Cambridge: Cambridge University Press, 2008); Susannah Riordan, 'Venereal disease in the Irish Free State: the politics of public health' in *Irish Historical Studies*, xxxv, cxxxix (2007); Ferriter, *Occasions of sin*; Leanne McCormick, 'Venereal disease in interwar Northern Ireland' in Catherine Cox and Maria Luddy (eds.) *Cultures of care in Irish medical history* (Basingstoke: Palgrave Macmillan, 2010).

<sup>7</sup> Paul Ferris, *Sex and the British: A Twentieth century history* (London: Michael Joseph, 1993), 1; Ferriter, *Occasions of sin*, 9.

<sup>8</sup> Ferriter, *Occasions of sin*.

view of Irish sexual life, a new area of scholarship has emerged, which sets out to plot the progression of Irish sexual attitudes and the changing discourse of sex as it affected the populations' private lives. This includes Paul Ryan's examination of Angela Macnamara's problem page, and Caitriona Clear's recent study of Irish women's magazines.<sup>9</sup> However, these primarily focus upon problem pages and magazines as a lens through which to examine sexuality in this manner. As a consequence, educational pamphlets have been largely ignored, despite these texts often providing the basis of the advice within these columns.<sup>10</sup> Having said this, an examination of pamphlets is an important step in not only establishing Church teaching on sex and sexual morality, but to better understand their role in dictating what lay within, and outside, acceptable sexual norms.

### Preserving Catholic values

Establishing what was acceptable sexuality was a difficult task for Catholic pamphleteers. The authors endeavoured to offer very basic sexual instruction to answer the questions of their congregation, but also to chastise what was perceived as the lack of morals inherent within modern society. The Rev. Robert Nash wrote in his 1960 pamphlet that his primary aim was to rescue young people from 'foul conversations, from novels and papers that reek of sex and sensationalism', and provide suitable instruction in sexual matters grounded within Catholic moral principles.<sup>11</sup> This sentiment, that young people were being tempted away from Catholic sexual norms is common throughout many of the pamphlets on the subject. For example, D. A. Lord in his pamphlet *Fashionable Sin*, laments the erosion of Catholic moral values and the resultant

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<sup>9</sup> Caitriona Clear, *Women's voices in Ireland: Women's magazines in the 1950's and 60's* (London and New York: Bloomsbury, 2016); Paul Ryan, *Asking Angela Macnamara: An intimate history of Irish lives* (Dublin and Portland, OR: Irish Academic Press, 2012); Paul Ryan, 'Love, lust and the Irish: Exploring intimate lives through Angela Macnamara's problem page, 1963-80' in *Sexualities*, xiv, ii, (2011); Maurice Devlin, 'A bit of the "other": Media representations of young people's sexuality' in *Irish Journal of Sociology*, xii, ii, (2003).

<sup>10</sup> Ryan, *Asking Angela*, 104-6.

<sup>11</sup> Robert Nash SJ, *Between 13 and 30* (Dublin, 1960), 7.

reversion to Romanesque hedonism and the popularity of 'modern paganism.'<sup>12</sup> Rev. Peter Birch wrote that sexual immorality had not only become popular, but was now respectable; that the pursuit of pleasure had overtaken the Christian goal of nurturing the soul through the holy spirit.<sup>13</sup> He argued that the only way to address this balance is to educate the young that 'their awakening sex longings must be recognised...as a blessing when they are properly used, and a lethal danger if they are let get out of control'.<sup>14</sup> The fear of sin losing its terrifying connotations is important to note. By normalising an activity, which Church teaching describes as deeply sinful, namely pre-marital sex, undermines the efficacy of the very notion of sin, and the deterring power the idea possesses. Thus, the focus within many pamphlets upon re-establishing the belief that to yield to these desires is to 'enter a slavery worse than death' is essential not only to protect the youth from sexual deviancy, but to reassert Church teaching as the guiding principle for the daily lives of all Catholics.<sup>15</sup> However, this approach was not a blunt instrument but rather used a combination of carrot and stick. It is not only the fear of sin that is invoked to enforce Church teaching and preserve Catholic values, but also the construction of an idea of an inherent purity which is the birth right of all Catholics.

The construction of this form of 'Catholic exceptionalism' as a core Catholic value is evident within a number of pamphlets. One author frankly asserts that 'it is the boast of the Catholic Church that she can preserve the purity of youth,'<sup>16</sup> while another warns that to sin not only risks damnation, but also throws away God's gift of love, given at birth.<sup>17</sup> By establishing pre-marital sexual activity not only as a sin, but also as a direct affront to the gifts granted to Catholics by God, it creates a powerful barrier to overcome within any discourse around sexuality, especially regarding anything outside of the accepted norm.

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<sup>12</sup> D.A. Lord, *Fashionable sin: A modern discussion of an unpopular subject* (Dublin, 1944), 6-8, 10.

<sup>13</sup> Rev. Peter Birch, *Who should tell them?: A talk on sex instruction* (Dublin, 1959), 1-4.

<sup>14</sup> *Ibid.*, 7.

<sup>15</sup> Rev. L. Gallagher, *What a boy should know: Being the letters of an uncle to a nephew* (Dublin, 1942), 14.

<sup>16</sup> *Ibid.*

<sup>17</sup> Nash, *Between 13 and 30*, 25.

It also serves to differentiate the spirit as the expression of goodness and truth, and the flesh as the source of temptation and sin, thus introducing an idea that the affairs of the body are inherently tainted.<sup>18</sup> This idea of the body as a 'living tabernacle' is also important within the discussions of married sexuality.<sup>19</sup> Marriage is presented within many pamphlets as not only the natural but also expected progression for young people, and a way to ensure that sexual desire does not become so strong as to overwhelm.<sup>20</sup> However, it is also described as a commitment equivalent to that of joining the priesthood, and that sexuality within marriage is not the decision of husband and wife, but rather must adhere to God's plan for all married couples, namely to have children.<sup>21</sup> It can be argued that this removes much of the individual agency from married sexuality by creating inherent expectations and rules to govern it. Philosopher and historian of sexuality Michel Foucault, in his seminal work *The History of Sexuality*, argues that constructing these rules around the sexuality of different groups, such as married couples and adolescents, was a form of social control intended to signal the omnipresence of the perils around sexuality and sin, and to awaken an attention and adherence to this.<sup>22</sup> This theme of control, be it social or religious, is present throughout the discourse around sexuality in Ireland and more generally. However, the discussion of control as it emerges within pamphlets is notable for the pronounced divergence in focus regarding the sexes.

### **Contrasting female and male control**

This contrast between the Catholic conceptions of male and female sexuality expressed within pamphlets hinge upon a belief that there was an inherent difference between male and female sexuality; namely

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<sup>18</sup> Tony Fahy, 'Religion and sexual culture in Ireland' in F. X. Eder, Lesley Hall and Gert Hekma (eds.) *Sexual cultures in Europe: National histories* (Manchester: Manchester University Press, 1999), 60.

<sup>19</sup> Ibid., 20.

<sup>20</sup> D.A Lord and R. C. McCarthy, *Grow up and marry* (Dublin, 1961), 1-3; Rev. L. Gallagher, *What a girl should know: Being the letters of an aunt to a niece* (Dublin, 1961), 18-19; J. A. O'Brien, *Falling in Love* (Dublin, 1948), 8.

<sup>21</sup> O'Brien, *Falling in love*, 4.

<sup>22</sup> Michel Foucault, *The history of sexuality: Vol. I* (London: Penguin, 1978) 30-1.

an absence of female sexual desire opposing the animalistic male desires. This belief led to a position where the control of female sexuality became important not only for its own sake, but also because of its role as an arbiter of male sexual desire. Further to this, Geraldine Meany has argued that the Catholic obsession with controlling women's bodies and oppressing female sexuality needs to be understood in the context of the struggle for national identity and the anxieties around male power which this brought.<sup>23</sup> Further to this, Tom Inglis concluded that the control of female sexuality, along with the Catholic construction of the ideal woman as a silent emulation of the Virgin Mary, reduced women to a passive role within society and also within marriage.<sup>24</sup> With regards to sexuality, this passivity saw women portrayed as acquiescent receivers of strong male sexual advances, with little or no equivalent desire of their own.<sup>25</sup>

This reductive vision of female sexuality emerges within many pamphlets also, leading to a duality of sexual advice. Boys are primarily warned to resist impure thoughts, whereas girls are told that they are the counterbalance to male sexual desire, therefore it is their responsibility to avoid creating temptation for the boy's sake.<sup>26</sup> This is particularly apparent in the pamphlet series *What a boy should know*, and its companion *What a girl should know*.<sup>27</sup> Both of these texts are targeted at adolescents, and provide advice around the 'new desires and inclinations' they are facing.<sup>28</sup> However, the focus of these texts is very different. While the advice for boys is almost solely concerned with managing 'bad thoughts,' the contrasting pamphlet for girls contains no such sentiments.<sup>29</sup> Young women, on the other hand, are advised on

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<sup>23</sup> Geraldine Meany, *Sex and nation: Women in Irish culture and politics* (Dublin: Attic Press, 1991), 7; Inglis, 'Origins of Irish prudery', 29.

<sup>24</sup> Inglis, 'Origins of Irish prudery', 24-5.

<sup>25</sup> For further discussion of women as receivers of male sexual desire see: Ryan, 'Love, lust and the Irish', 225-9; Betty Hilliard, 'The Catholic Church and married women's sexuality: Habitus change in late Twentieth century Ireland' in *Irish Journal of Sociology*, xxii, ii, (2003), 30-3; Humphreys, *New Dubliners*, 139; Patrick Baggot, *Unspoken problems of married life* (Dublin, 1965), 21-2.

<sup>26</sup> Michael Robins, *Boy meets girl* (London, 1959), 12-13

<sup>27</sup> Gallagher, *What a boy should know*; Gallagher, *What a girl should know*.

<sup>28</sup> Gallagher, *What a boy should know*, 14.

<sup>29</sup> *Ibid.*, 11.

‘setting a high price for yourself’ and guidance for becoming a perfect wife, advice which involves avoiding nagging and taking cod liver oil to ensure a happy honeymoon.<sup>30</sup> The divergent focus between these two texts echoes the ignorance regarding female sexual agency discussed above. Discourse around sexuality within many pamphlets hinged on the acceptance of fundamental differences between the sexual desires between genders; namely the reluctance to recognise female sexual desire acting as the perfect counterbalance to raging male sexuality.<sup>31</sup>

In this regard, it is interesting to examine the contrasting discourse around control of male sexuality. The battle against impure thoughts is a theme throughout, with many pamphlets offering various strategies to deal with, or highlighting the consequences of acting upon them. One author advises young men that when impure thoughts strike to ‘keep calm, turn your attention to your stamps’ and to say three Hail Marys for the gift of purity.<sup>32</sup> Another suggests planning a cricket team of the fattest men you know, or imagining yourself jumping from a tall factory chimney.<sup>33</sup> However, they are at pains to assure young men that having impure thoughts in itself is not wrong, but rather it is the derivation of any pleasure from them that is a grave sin.<sup>34</sup> While this may partially echo Orwellian ‘thoughtcrime’, the problem of sexual temptation emerging within the mind is one which clearly worried those concerned with the moral welfare of the young. The combination of emerging sexual desire within young adults, allied with a perceived morally impure culture which provided an easy outlet to act upon these thoughts can perhaps explain the focus within these pamphlets to provide men with the mechanisms to control their sexual desires. Foucault argued in this regard, that the idea that thoughts can be sinful transformed the notion that to simply confess a sinful act is enough for absolution. Instead, it necessitated not only reconstructing the act,

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<sup>30</sup> Gallagher, *What a girl should know*, 10, 20-3.

<sup>31</sup> Robins, *Boy meets girl*, 12-13; O’Brien, *Falling in love*, 11; Lord and McCarthy, *Grow up and marry*, 13.

<sup>32</sup> Gallagher, *What a boy should know*, 11-12.

<sup>33</sup> C. C. Martindale, *The difficult commandment: Notes on self-control especially for young men* (London, 1950), 26.

<sup>34</sup> Martindale, *The difficult commandment*, p 1; Gallagher, *What a boy should know*, 11.

which was to be confessed, but also the thoughts and obsessions which preceded it.<sup>35</sup> Frank O'Connor, in his short story *News for the Church*, captures this idea of confession stripping back the many layers of sin, when the young protagonist confesses that she had had sex the previous night.<sup>36</sup> The priest continues to ask the nineteen year old woman more intimate questions, 'stripping off veil after veil of romance, leaving her with nothing but a cold, sordid, cynical adventure, like a bit of greasy meat on a plate.'<sup>37</sup>

### **Married sexuality and liberalising trends**

The place of romance and pleasure within Catholic discourse around sexuality is problematic to capture. O'Connor's story suggests the burden of confession could serve to temper sexual enjoyment, or at least diminish some of the romance associated with it. Further to this, the focus upon procreation as the primary purpose of sexual intercourse within Church teaching has also been proposed as being responsible for the removal of much of the enjoyment of sex for women.<sup>38</sup> However, the language regarding sexual pleasure within some pamphlets is interesting to note. One author describes sex as 'god given, it enables men and women to become co-creators with god, the pleasure given to its use was attached to it by god. But the use of sex is reserved by God.'<sup>39</sup> Another, in a similar vein, advised that 'sex also has the effect of making a man and woman fonder of each other...but the main purpose of sex is to conceive and the sexual instincts are designed by God for this purpose.'<sup>40</sup> It is interesting that these two examples choose to refer to the pleasurable aspects of sexuality, as many do not. However, they still serve to reinforce the inextricable nature of sex and procreation, which serves to define sexual activity outside of this context as against God's intentions. This, in turn, raises the possibility that sex within marriage can still be sinful and that marriage does not

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<sup>35</sup> Foucault, *History of sexuality* Vol. I, 63.

<sup>36</sup> Frank O'Connor, 'News for the Church', *The New Yorker*, 22 Sep. 1945.

<sup>37</sup> Quoted in Ferriter, *Occasions of sin*, 236.

<sup>38</sup> For a discussion of fears of pregnancy tempering female sexual enjoyment, see: Hilliard, *Catholic Church and married women's sexuality*, 35-8; Ryan, 'Love, lust and the Irish', 225-6.

<sup>39</sup> Bill Gerrard, *Towards a white courtship* (Belfast, 1959), 46.

<sup>40</sup> Robins, *Boy meets girl*, 12.

absolve sexual behaviour from the sinful connotations associated with pre-marital sex. This is a theme which Patrick Baggot, a Jesuit priest and marriage counsellor in Dublin, addresses directly in his notably progressive pamphlets, *Marriage morality* and *Unspoken problems of married life*.<sup>41</sup>

Within *Marriage morality*, Baggot tackles directly the difficulties that can be faced regarding married sexuality, and argues that these problems are often caused by the focus on procreation within the majority of the Church's teaching on sexuality. He quotes a letter from an unnamed husband who wrote that he and his wife found that in their 'love making we could not avoid those things we had been brought up to believe were mortal sins...the real trouble, however, is that we did not know how to reconcile what we were doing with such matters as obedience to the laws of God, the purposes of sexuality, the fear of committing sin'.<sup>42</sup> He goes on to discuss another letter he received, this time from a wife who, after giving birth to four children, along with a number of miscarriages, explained that her fear of pregnancy had seriously affected her relationship with her husband. Further to this, the belief that sexual activity outside the realms of procreation described above were deeply sinful, had left her with a crisis of conscience. Her letter is worth quoting at length:

After a troublesome day, perhaps working from early morning until late at night, and feeling tired and tense, it is lovely to be loved, but one has to deny oneself even this luxury...I had to find a sympathetic priest to confess that I had committed a sin in my married life. I did not know how else to put it into words. What I really meant was that I had no intercourse but there was a loss of seed outside. My husband had been told that if this was brought on by any deliberate action on my part then this was my sin...The silent tears into one's pillow, asking our Dear Lord for forgiveness after committing this so called grievous sin.'<sup>43</sup>

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<sup>41</sup> Patrick Baggot, *Marriage morality: Where do we stand?* (Draft pamphlet, 1960), Irish Jesuit Archives, J585/5 (39).

<sup>42</sup> Baggot, *Marriage morality*, 609.

<sup>43</sup> *Ibid.*, 623-4.

This letter captures the difficulties inherent within the belief established within many pamphlets that sexual behaviour outside of procreation as sinful. It is also indicative of the minefield faced by many Catholics. Within this, sexual activity before marriage was a mortal sin, but the vows of marriage did not.

In this regard, Baggot argues that there must be a rethinking of what is deemed acceptable sexual behaviour for Catholics. Within this he differentiates between what he describes as 'unitive' and 'procreative' sexual activity.<sup>44</sup> He argues that the unitive power of sexuality to create a happy home in which to bring children is overlooked.<sup>45</sup> This concept of unitive sexuality is unique among the pamphlets discussed within this paper. Baggot's advice directly references the weaknesses and difficulties that were inherent within the dominant Catholic discourse around sexuality and morally acceptable sexual behaviour, particularly the focus upon sex being solely for procreation. However, standing alone on these issues saw Baggot reprimanded by his superiors within the Jesuit order.<sup>46</sup> He was also reported to Archbishop McQuaid for disagreeing with the Pope's *humanae vitae* encyclical, and expressing liberal ideas on contraception within his marriage retreats.<sup>47</sup> Baggot's involvement with marriage retreats brought him into contact with many newlywed and engaged couples where he gained an insight into the concerns and questions young people had about their marriage and sexuality. Arguably, this hands on experience of engaging directly with concerns around marriage and sexuality influenced Baggot's interpretation of Church teachings and can go some way towards explaining his how his progressive views on sexuality were unique among his contemporaries. The liberalism shown by Baggot, while seeing him reprimanded, seemed to be more closely aligned to the contemporary perceptions of Protestant social teaching. Protestants were often seen as socially and

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<sup>44</sup> Ibid., 615-8, 626; Baggot, *Unspoken problems of married life*, 20-1.

<sup>45</sup> Baggot, *Unspoken problems of married life*, 20; Baggot, *Marriage morality*, 626.

<sup>46</sup> Administrative papers, Irish Jesuit Archive, J505/5 (16), (17), (18)

<sup>47</sup> Diarmaid Ferriter, 'Sex and the Archbishop: John Charles McQuaid and social change in 1960s Ireland' in T. E. Hachey (ed.) *Turning points in Twentieth century Irish history* (Dublin, Portland, OR: Irish Academic Press, 2011), 146.

culturally different from Catholics, and this disparity extended to sexuality.

### Comparing Protestant and Catholic views on sexuality

Within contemporary accounts and fiction, Protestants are often viewed with envy by their Catholic counterparts for the greater moral freedom they were deemed to enjoy. For example, in Brian Moore's novel *A Moment of Love*, the protagonist blames his sexual inexperience on his Catholic upbringing, concluding that 'if I had been a Protestant...I would have had my fill of girls.'<sup>48</sup> Eamon Duffy, in his memoirs of growing up in 1950s Dundalk, described Protestants as 'exotics' who were 'so a cut above us.'<sup>49</sup> John McGahern too recollected that Protestants were admired during his childhood for being 'morally more correct than the general run of our fellow Catholics'.<sup>50</sup> These accounts are revealing of a perception among some Irish Catholics that there was a tangible difference between them and their Protestant counterparts beyond a belief in transubstantiation rather than consubstantiation. The focus upon avoiding mortal sin and maintaining purity within Catholic discourse imposed a number of restrictions upon what could be considered acceptable behaviour for Catholics and as a result left those wishing to remain true to their faith with a minefield of possible sins to avoid. It also left others to grapple with how their personal desires conflicted with the Catholic moral code, which had surrounded them for their whole lives. By contrast, as demonstrated in the accounts outlined above, it was assumed by some Catholics that Protestants were free from many of these constraints. However, this is not found to be the case when examining Protestant dialogue on moral issues during this period. While there is insufficient time to fully discuss the nature of popular Protestant discourse regarding sexuality, it can provide a counterpoint to issues discussed earlier in this paper. Within Protestant popular discourse during this period, fears for the

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<sup>48</sup> Quoted in Ferriter, *Occasions of sin*, 241.

<sup>49</sup> Eamon Duffy, *Faith of our fathers: Reflections on Catholic tradition* (New York: Continuum, 2004), 12.

<sup>50</sup> John McGahern, 'Reading and writing' in Gabriel Doherty and Dermot Keogh (eds.) *De Valera's Irelands* (Cork: Mercier, 2003), 134.

moral welfare of the young were just as prevalent. Concerns regarding the young being tempted away from Protestant moral norms, and the importance of the confession of sin, are emergent themes.<sup>51</sup> However, there was a distinctly different focus. There were few expressions of concern regarding sexual deviancy among the young, with Protestant clergy and organisations such as the Church of Ireland Moral Welfare Society choosing instead to focus upon the dangers of alcohol and its abuse.<sup>52</sup> Further to this, the boundaries of 'acceptable' sexual behaviour are less rigidly defined than within Catholic discourse. This allowed one Bishop to advocate the use of the contraceptive pill at a conference on family planning.<sup>53</sup> However, while there are similarities within the concerns of both Churches, it is difficult to ignore the softer tone used within Protestant discourse regarding sin and sexual morality. As such, while concerns for young people and their moral welfare crossed denominational lines, the dominant Catholic discourse regarding sexuality remained particularly intricate, comprising multiple layers of sin within both body and mind to be carefully navigated by those hoping to follow Church teaching, while still maintaining sexuality as part of their life.

## Conclusion

This paper's focus upon advisory pamphlets is an attempt to shift the focus away from the emphasis upon what went wrong within the study of sexuality in Ireland. The dominance of themes such as venereal disease, prostitution and sexual abuse leads to a monochromatic portrayal of this aspect of Irish social history. In order to redress this imbalance, there is much work to be done on examining the experience of Irish sexuality beyond the extreme. Placing Ireland in a wider comparative context is another area where there is a lot of work still to do. Having said this, recent scholarship on Irish sexuality has begun to move in this direction, and it is within this that this paper places itself.

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<sup>51</sup> For example, *Church of Ireland Gazette*, 1 Apr. 1960; *ibid.*, 13 Jun. 1952; *ibid.*, 17 Oct. 1952; *ibid.*, 7 May 1954.

<sup>52</sup> *Ibid.*, 19 Nov. 1954; *ibid.*, 18 Nov. 1960; *ibid.*, 24 Apr. 1959.

<sup>53</sup> *Ibid.*, 8 Apr. 1960.

These pamphlets were often the basis for much of the advice offered by ‘agony aunts,’ and their study provides an illuminating perspective from which to study the dominant discourse around sexuality, namely one grounded within Catholic moral teaching. Within these texts, the control of female sexuality is a recurring theme, particularly in the reluctance to recognise female sexual desire. However, it is interesting to observe the concerns surrounding male sexual urges, described as more powerful than their female equivalent, and the focus upon providing men with mechanisms for self-regulation of their sexual desire. While marriage was offered as one solution to avoiding mortal sin, married sexual behaviour was not completely free from the sinful connotations of sex for the unmarried. The language used within the pamphlets, presented married sexuality as ultimately concerned with procreation as part of God’s plan. While there were attempts by Patrick Baggot to introduce the idea of ‘unitive’ sexuality, and the potential of sex to bring couples closer together, most pamphlets chose to focus upon its procreative nature. By contrast, there was a belief by some Catholics that their Protestant counterparts were inherently different when it came to issues of morality, with some accounts blaming their sexual inexperience on their Catholic upbringing in contrast to the perceived moral freedom enjoyed by Protestants. These beliefs are not found to be completely true following analysis of Protestant discourse on the issue. Moral concerns were just as visible within the Protestant churches during this period. However, it was alcohol abuse rather than sexual deviancy, which was perceived as the greatest threat to Protestant young people. The Catholic Church on the other hand, addressed a multiplicity of possible moral pitfalls, from impure thoughts to improper sexuality within marriage, which created a complex minefield for any Catholics concerned with preserving their sexuality and their faith.

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## **Delivering Information: Women's Work in the Public Sphere in *Dracula***

Samantha Orsulak<sup>1</sup>

### **Abstract**

Looking at ideological shifts in society around 1897, this paper presents Stoker's *Dracula* as a response to evolving gender roles, as the idea of the separate spheres of the public and private gave way to upper- and middle-class women entering the workforce. Stoker provides readers with both subversions and advocations of women's entrance into the public sphere as workers, as Stoker's female character Mina traverses the private and public spheres to become secretary, typist, and publisher of her group's journals. *Dracula* offers a horror story in which women are placed in positions of power as disseminators of information, yet they must rely on men to give them the data necessary to produce that information. What follows is a simulation of procreation, arguably both supporting women's place in the public sphere and subverting it, seen in the success of the character Mina in the destruction of Dracula and her status as wife and mother at the end of the novel.

### **Keywords:**

Motherhood, society, information, separate spheres, gender

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Recent trends in Dracula studies have utilized a historical lens to interpret the text.<sup>2</sup> While most historical interpretations of Stoker's portrayal of gender roles argue that he negatively represents women, I offer a refutation. By considering contemporary cultural tensions surrounding the entrance of middle-and upper-class women into the workforce, and their effects on gender roles in the 1880s and 1890s, I argue that Stoker provides a progressive portraiture of the working woman in his character Mina Harker. The present paper investigates Stoker's views on the declining ideology of separate spheres by analysing the characters' successes and failures in their movements between the public and the private spheres. Ultimately, Stoker offers a problematic, yet progressive, representation of gender roles through his characters' interactions with information. Stoker frames Mina's public position of editor and publisher of the characters' journals through language of motherhood, seemingly undermining her entrance into the public sphere with comparisons of her role in the private sphere; as Mina works with the male characters' journals, she takes on the symbolic role of mother with her insemination, gestation, and delivery of knowledge. However, Stoker's blending of the public and private spheres in Mina's distribution of information argues for the collaboration of both genders in the creation and contributions to public information, providing readers a relatively progressive commentary on evolving gender roles at the end of the nineteenth century.

One issue within the field of Dracula studies is the terminology used for describing the collective of characters who join together to defeat Dracula, as these names often lead to the exclusion of ideas, and thus missed opportunities for new interpretations. As much as scholars discuss women and gender within *Dracula*, it is important that their descriptions and names reflect their ideas. I argue that Mina Harker is one of the most important characters in the novel, yet many scholars exclude her from their descriptions of the group of protagonists.

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<sup>2</sup> Daly claims that 'the tendency to see Dracula in relation to specific late-nineteenth century historical contexts marks the most recent accounts of the text': Nicholas Daly. 'Incorporated Bodies: Dracula and the Rise of Professionalism', *Texas Studies in Literature and Language* 39, no. 2 (1997): 185.

For example, Rosemary Jann refers to the group as “Van Helsing and his band” yet she offers insightful analysis of Mina’s contributions to the “band”—“it is only when Mina” edits and compiles the group’s journals and data “that the main characters suddenly see the pattern that points to Dracula and are able to join forces against him.”<sup>3</sup> Even though Jann states that Mina is the one to support sharing information and collaboration, Jann’s use of “the main characters” to describe the men excludes Mina and discounts her membership within the group. Nicholas Daly also excludes Mina in his terms, referring to the group through Jonathan Harker’s (Mina’s husband) description of the collective as a “little band of men,” as “Mina’s gender disqualifies her from team-membership.”<sup>4</sup> Daly instead argues that “she is meant to be the ideal center around which it [the ‘band’] revolves.”<sup>5</sup> Lastly, Christopher Craft’s term, “Crew of Light,” is one of the most accepted and used names for the assembly of characters, but his reasoning behind it also problematically excludes Mina: he explains, “This group of crusaders includes Van Helsing himself, Dr. John Seward, Arthur Holmwood, Quincey Morris, and later Jonathan Harker; the title Crew of Light is mine, but I have taken my cue from Stoker: Lucy, lux, light.”<sup>6</sup> Craft not only leaves Mina out of the list of crusaders, but also implies that the crew assembles for Lucy’s sake, when in fact “the charter for this league of men” is “to save [Mina] a ‘gallant woman’ from” Dracula, as Lucy is already dead.<sup>7</sup> While these scholars use problematic and exclusive terms for the assembled Dracula-fighting group, they offer incredible insights into *Dracula* and its portrayal of genders and gender roles. While I do not offer a new name, I will use the gender-neutral terms from scholars like Richard Wasson, who describes the collective as “group” or “allies” in order to convey the importance of inclusion, as

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<sup>3</sup> Rosemary Jann, ‘Saved by Science? The Mixed Messages of Stoker’s *Dracula*’. *Texas Studies in Literature and Language* 31, no. 2 (1989): 280.

<sup>4</sup> Daly, ‘Incorporating Bodies’, 190.

<sup>5</sup> *Ibid.*, 189.

<sup>6</sup> Christopher Craft, “‘Kiss Me with Those Red Lips’: Gender and Inversion in Bram Stoker’s *Dracula*”, *Representations* 8 (1984), 130.

<sup>7</sup> Daly, ‘Incorporating Bodies’, 187.

well as retain Stoker's support of the collaboration between genders in creating knowledge and information in the following argument.<sup>8</sup>

One way in which Stoker comments on social and cultural ideals is through the identities and interactions of characters within the allied group. The assembly of characters possesses an assorted mix of demographics, spanning class, gender, profession, and nationality, providing a varied sampling of the greater English population. In creating a sample of the society, Stoker can make claims about the British nation and culture within a suitable amount of major characters. In terms of class, the group ranges from upper class gentry, such as Lord Godalming, to the lower middle class, like Jonathan and Mina Harker. Most of the other characters fall in the range of middle to upper middle class, such as Lucy and Seward, who are hinted to be "well off, and of good birth."<sup>9</sup> While the Harkers begin the novel as lower middle class, they climb a social class through their professions, moving from borderline-working class to middle class. Both characters begin the novel as assistants in their respective professions, often recording that they are "working very hard," even "working day and night," with their repetition of the word "working" implying their status is at least the closest within the group to working class.<sup>10</sup> However, they receive promotions as the novel continues: Harker moves from solicitor to "junior partner of the important firm Hawkins and Harker" to "rich master of his business,"<sup>11</sup> and Mina moves from assistant schoolmistress, "one part of the cheap female labor force," to "stenographer, typist and nurse to the band of men."<sup>12</sup> Though it is troubling that Stoker does not include any lower class characters in the sampling group, his inclusion of the Harkers' upward mobility in their social status implies that his commentary about women entering the public sphere as workers only applies to middle and upper class women.<sup>13</sup>

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<sup>8</sup> Richard Wasson, 'The Politics of Dracula'. *English Literature in Transition, 1880-1920* 9, no. 1. (1966): 26, 27.

<sup>9</sup> Bram Stoker, *Dracula* (London: MacMillan Collectors Library, 2016), 80.

<sup>10</sup> Stoker, *Dracula*, 79, 303.

<sup>11</sup> *Ibid.*, 213, 235

<sup>12</sup> Daly, 'Incorporating Bodies', 189.

<sup>13</sup> The same reason for Stoker's exclusion can be applied to race.

The group also provides a sample of the population in its varied professions, “represent[ing] key roles in the Victorian establishment: the aristocracy, the legal and medical professions, the paramilitary fighter.”<sup>14</sup> Each profession offers a unique skill in defeating Dracula. Godalming uses his aristocratic status and wealth to manipulate others, such as his ability to unlawfully enter Dracula’s house without any repercussions: “My title will make it all right with the locksmith, and with any policeman that may come along.”<sup>15</sup> Harker’s legal dealings with Dracula lends the group intimate knowledge of his estate, allowing the men to explore his Carfax house in relative safety, and Seward and Van Helsing’s medical knowledge provide them with enough surgical skill to keep Renfield alive while he tells them of Dracula’s plans for infecting Mina. As a paramilitary fighter, Morris offers physical skills and equipment in his constant use of guns and knives, being the one to “carry a small arsenal,” shooting through the group of gypsies protecting Dracula and stabbing Dracula in the heart.<sup>16</sup> Lastly, the group’s nationalities cover a somewhat diverse range, as it includes English, American, and Dutch, incorporating Western society from America to the western region of the European continent. While Dracula acts as the threatening foreign invader, Morris and Van Helsing, from Texas and Holland, respectively, are friendly, travelling foreigners who give colourful accents to the group. The collective characters’ demographics are varied, providing a sampling of the English population in Stoker’s time, allowing him to explore larger, society-encompassing issues within a manageable cast of people.

One such issue Stoker explores is the late nineteenth-century transformation of gender roles, specifically the elements of those roles that applied to the ideology of separate spheres. The ideology of separating the public sphere and the private sphere “emerged [in ‘the late eighteenth and early nineteenth centuries’], and was embedded in practice, in which home life turned into a female-dominated space and

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<sup>14</sup> Jann, “Saved by Science?”, 284.

<sup>15</sup> Stoker, *Dracula*, 408.

<sup>16</sup> Stoker, *Dracula*, 483.

public life was dominated by men.”<sup>17</sup> However, “the rapid economic and population expansion of the nineteenth century was accompanied by a dramatic increase in employment opportunities for women,” leading to a worrying contradiction in women’s roles in society.<sup>18</sup> The cultural idea of a woman’s place in the private sphere did not allow for employment in the public sphere, leading to doubts about the value in the separation of the spheres: “the question of women’s roles became an increasingly frequent and controversial point for public discussion.”<sup>19</sup> As a result of the growing need for women in the workforce and the public challenges to the separation of the private and public spheres, the 1880s and 1890s saw several changes to social structures, including women’s major entrance into the workforce of the public sphere.<sup>20</sup> No longer dependent and trapped within the private sphere of the home, women began working as clerical employees such as secretaries and typists for businesses within the public sphere.

With the entrance of women into the workplace came men’s anxieties about this paradigm shift. Some men felt “concern over ‘moral dangers’ possibly awaiting the women daring to venture into the ‘mixed assemblies’ of the world of work.”<sup>21</sup> Because men saw information and knowledge “as belonging to an extended British public sphere,” some men worried that women would somehow taint their femininity by handling information as they performed their clerical duties.<sup>22</sup> Not only would women be tainted from their entrance to the public sphere, but also their mobility between the spheres threatened the status quo: “The field’s feminization initially threatened notions of ‘separate spheres’ for the two sexes,” forcing businesses to address the

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<sup>17</sup> Robert B. Shoemaker, *Gender in English Society 1650-1850: The Emergence of Separate Spheres?* (Routledge, 2014), 305.

<sup>18</sup> Barbara Kanner, ‘The Women of England from Anglo-Saxon Times to the Present: Interpretive Bibliographical Essays’, *The American Historical Review* 88, no. 5 (1983): 191.

<sup>19</sup> Kanner, ‘Women of England’, 178.

<sup>20</sup> According to Tilly and Scott, while women (especially in the working and lower classes) have always been involved as workers in some degree, the 1880s saw specifically middle- and upper-class women entering more visibly public positions in the workforce: Louise A. Tilly and Joan Wallach Scott, *Women, Work, and Family* (Psychology Press, 1987).

<sup>21</sup> Kanner, ‘Women of England’, 191.

<sup>22</sup> Thomas Richards, ‘Archive and Entropy’ in *The Imperial Archive: Knowledge and the Fantasy of Empire* (London: Verso, 1993), 74.

issue of the colliding spheres.<sup>23</sup> As more women were hired, more companies began to decorate their offices in imitation of the home, establishing "a domestication of the private sphere."<sup>24</sup> However, this blending of the spheres left many concerned not only about women's newfound voice within the public sphere, but also what their place in the public meant for their traditional roles in the private.

To alleviate these fears of women's domestic futures, many viewed women's newfound place in the public sphere as merely training for their ultimate positions in the private sphere: "In the 1880s and '90s . . . the language of domesticity was often employed to make middle-class women's work in offices appear as a logical extension (or, more aptly, precursor) of their roles as mothers and wives"<sup>25</sup> Viewing this perception of women's employment as merely a temporary foray into the public sphere before permanently returning to the private sphere, some authors "addressed themselves to the problem of influencing public opinion to sanction these new feminine roles, and to approve a wider range of occupations. Undoubtedly, these efforts helped toward the eventual social acceptance of Victorian career women."<sup>26</sup> While Stoker is often criticised for his portrayal of women, I will argue that Stoker was among these authors, arguing for women's ability to work in the public sphere alongside men.<sup>27</sup>

Stoker illustrates his progressive view of women's place within the workforce through his portrayal of Mina as a progressive woman who successfully traverses both social spheres throughout the novel. However, he does not offer an easy transition from the private to the public; rather, he explores the tensions that occur when a woman moves between the social spheres. The male characters' struggle to accept Mina into the group—despite her continuous significant contributions with her compiled packets of information—becomes

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<sup>23</sup> Jennifer Fleissner, 'Dictation Anxiety: The Stenographer's Stake in *Dracula*,' *Nineteenth Century Contexts* 22, no. 3 (July 2008): 447.

<sup>24</sup> *Ibid.*, 427.

<sup>25</sup> *Ibid.*, 427.

<sup>26</sup> Kanner, 'Women of England', 191.

<sup>27</sup> Arata claims, 'fear of women is never far from the surface of his [Stoker's] novels': Stephen D. Arata, 'The Occidental Tourist: "Dracula" and the Anxiety of Reverse Colonization', *Victorian Studies* 33, no. 4 (1990): 625.

"largely about the 'proper' distribution of masculine and feminine qualities" within narration: "The struggle to shape and deploy narrative reveals both the close association of narrative authority with other forms of social power and agency, and more particularly, an anxiety about the implications of women appropriating that power."<sup>28</sup> Men's expression of this concern, through their determination that women would return to the private sphere, is seen in Van Helsing's focus on Mina remaining ignorant of the men's proceedings, for "it is no part for a woman . . . she is young woman and not so long married; there may be other things to think of some time, if not now."<sup>29</sup> While he is perfectly happy that she acts as the group's secretary temporarily, he wants her to leave the public sphere and become a mother in "some time, if not now," despite the looming threat of Dracula. Interestingly, Mina does not listen to Van Helsing's desires and only becomes a mother when her work in the public sphere is done (the defeat of Dracula), while Lucy strictly adheres to Van Helsing's orders and she falls from virtuous virgin to sexually voracious vampire. In fact, Stoker deems women's voices necessary to their success in the public sphere: Mina produces journals, essentially a literary voice, and succeeds in her clerical work as well as in motherhood, whereas Lucy continually submits to commands for silence: "Hush! no telling to others that make so inquisitive questions. We must obey, and silence is a part of obedience."<sup>30</sup> Furthermore, she fails in both a public sense, as she is unemployed, and in a private sense, as she dies unwed and childless. By providing a challenging path between the social spheres for his female characters to traverse, Stoker creates a realistic, yet progressive, view of the anxieties and perceptions of women's entrance into the workforce.

While Stoker's portrayal of Mina is progressive in its support of her as a working woman, the language he uses to describe her work as a typist and disseminator of the group's journals is problematic. Stoker frames the dissemination of information, essentially the work of a

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<sup>28</sup> Alison Case, "Tasting the Original Apple: Gender and the Struggle for Narrative Authority in *"Dracula"*", *Narrative* 1, no. 3 (1993): 224.

<sup>29</sup> Stoker, *Dracula*, 320.

<sup>30</sup> *Ibid.*, 109.

secretary or typist, in the language of pregnancy and procreation, effectively subverting women's positions in the public sphere by referring to them through women's positions as mothers in the private sphere. Though I argue that this is in some ways progressive in the idea that the creation and dissemination of knowledge necessitates men and women to collaborate, it remains troubling considering men's anxious desire to push women back into the private sphere.

Because the allied group represents larger society, Mina's production and distribution of their collective journal takes on a larger role, as she becomes editor, producer, and publisher of a printed publication. The implications of this amount of power threatens her femininity, so it must be framed in the language of motherhood. Van Helsing describes knowledge through the various stages of procreation early in the novel, creating an image of knowledge as a living thing for the rest of the text. He tells Seward to hold knowledge in his head and his heart, "where it may gather its kind around it and breed."<sup>31</sup> Notably, Van Helsing often describes Mina as having a "man's brain" and a "woman's heart," which, when applied to his advice to Seward, would imply that Seward must place knowledge and information in Mina.<sup>32</sup> According to Van Helsing's idea, knowledge gathers between male and female, inseminating and breeding until it is ready to be communicated, or delivered, to someone else. Mina performs this knowledge-breeding process as the symbolic mother. She receives the men's journals and mixes them with her own, allowing the knowledge within the journals to gestate in one place—the larger compiled and edited journal—upon which she delivers the product, the new knowledge from the compiled information.

Mina has "an utter dependence on their [the men's] specialized knowledge" in order to produce this new knowledge, supporting the idea of childbirth—Mina must receive the men's raw materials (individual journal entries) in order to breed new knowledge.<sup>33</sup> Mina's fertile production of the team's knowledge acts out the system within

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<sup>31</sup> Ibid., 166.

<sup>32</sup> Ibid., 320.

<sup>33</sup> Nancy Armstrong, *How Novels Think: The Limits of Individualism from 1719-1900*, (New York: Columbia University Press: 2006), 129.

an ideal inclusive society: individuals of both genders share their knowledge with society, where it collects, gestates within the collective minds, growing into new knowledge, and then the individuals receive the fruits of their labour as the new knowledge is released in the society, starting the process again. Mina is the ideal model of what the team fights for in defeating Dracula, acting not only as the disseminator of information, but also giving metaphorical birth to the information and knowledge necessary for the success of the team. In acting as collector, (re)producer, and deliverer of information, Mina can channel the sexual overtones of the public sphere by using them as practice for motherhood, allowing her to succeed in the workforce.

One example of Mina's procreation of information occurs when the group first assembles. After typing out Seward's phonograph recordings of his journal "from the beginning of the seventh cylinder," Mina integrates the data with her and her husband's data to create one coherent collection of information.<sup>34</sup> Seward notes that Mina and Harker return to their room to combine the accounts, suggesting the collection and combination of data takes part in the private sphere as something sexual; he explains, "Harker and his wife went back to their own room, and as I passed a while ago I heard the click of the typewriter. They are hard at it."<sup>35</sup> Although Mina does not need her husband, as she already has the data from Seward and her own journals, her inclusion of Harker and their removal to the bedroom serves to combine the domestic and sexual with the professional and public: "Stoker seems to be affirming this professional and personal symbiosis, which dissolves the 'separate spheres' in which the High Victorian husband and wife conventionally operated."<sup>36</sup> The cooperation between the genders for the creation of knowledge continues: Seward notes, "Mrs. Harker says that they are knitting together in chronological order every scrap of evidence they have."<sup>37</sup> The act of knitting, a domestic production of combining two pieces of raw material to create one useful product, suggests that the

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<sup>34</sup> Stoker, *Dracula*, 305.

<sup>35</sup> Ibid., 306.

<sup>36</sup> Case, 'Tasting the Original Apple', 225.

<sup>37</sup> Stoker, *Dracula*, 306.

reproduction of information so vital to the allies' mission may also take place in the private sphere by the hand of a woman.

To support this idea of reproduction of information from raw data, Seward claims new knowledge immediately upon reading the journals Mina and her husband produce after receiving his phonograph records: "Strange that it never struck me that the very next house might be the Count's hiding-place! Goodness knows that we had enough clues from the conduct of the patient Renfield! The bundle of letters relating to the purchase of the house were with the typescript."<sup>38</sup> Seward realises the importance of Mina's reproduction of information in his assertions that it is "strange that it never struck" him before, yet he emphasises the fact that he had the data to create the knowledge and yet could not glean the information from it. Seward's inability to create information from his own data reinforces Mina's ability to produce and deliver it as a metaphorical mother and successful public information handler.

In fact, Stoker seems to focus on the difference between Mina, the embodiment of the private sphere, and Seward, the epitome of the public sphere, in their interactions with other characters' information. While Mina is a symbolic mother and comes from the domestic world into the public, Seward is a bachelor and professional, becoming increasingly unable to transfer from the public into the domestic. His most notable characteristic is his scientific ambition, not allowing him access to the domestic world: when Mina enters his house, the symbol of his domestic domain, she is "unable to repress a shudder" as it is a reminder of his professional position within a lunatic asylum.<sup>39</sup> When Seward proposes to Lucy, he fiddles with a lancet "in a way that [makes] [Lucy] nearly scream."<sup>40</sup> His inability to distance himself from the professional, seen in his bringing a lancet (a tool of his profession) into not only a home, but also an offer of domestic bliss, scares Lucy and she rejects his proposal.

Seward's failure to breach the private sphere is repeated in his inability to simulate procreation when Lucy and Morris offer him

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<sup>38</sup> Ibid., 307.

<sup>39</sup> Ibid., 299.

<sup>40</sup> Ibid., 83.

information to process about Lucy's mysterious loss of blood. Despite being given copious amounts of information, Seward is unable to combine them into a tangible idea. When Lucy leaves a note after a visit from Dracula, she states that a bat has been "flapping at the window, which had begun after that sleep-walking on the cliff at Whitby," where she began to feel ill.<sup>41</sup> Upon reading it, Seward recalls, "I was so bewildered that I did not know what to say."<sup>42</sup> After being unable to decipher Lucy's message, Seward turns to Morris, who tells him a story about his horse that eerily matches Lucy's symptoms:

I have not seen anything pulled down so quick since I was on the Pampas and had a mare that I was fond of go to grass all in a night. One of those big bats that they call vampires had got at her in the night, and, what with his gorge and the vein left open, there wasn't enough blood in her to let her stand up.<sup>43</sup>

Morris's delivery of information to Seward borders on absurdity when he asks: "That poor pretty creature that we all love has had put into her veins within [ten days] the blood of four strong men. Man alive, her whole body wouldn't hold it . . . What took it out?"<sup>44</sup> At this point, Seward has received the facts that: a large bat has regularly visited Lucy since the outset of her blood loss; there have not been any large pools of blood around Lucy after her blood goes missing; animals exist that can drink the blood of other living beings by poking holes in them and sucking it out; and Lucy has two holes in her neck that remain open. Frustratingly, because Seward continues to fail in accepting the data offered by Lucy and Morris, he cannot procreate, seen in his reply to Morris's question: "I can't even hazard a guess."<sup>45</sup> His failure to enter the private sphere contributes to Lucy's and Renfield's deaths, as he cannot reproduce the data he has into workable information. It is only after he learns to include Mina, the embodiment of the domestic, in his ideas for the sake of creating information that he can enter the private

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<sup>41</sup> Ibid., 119.

<sup>42</sup> Ibid., 124-25.

<sup>43</sup> Ibid., 209.

<sup>44</sup> Ibid., 210.

<sup>45</sup> Ibid., 210.

sphere, evidenced by his being “happily married” at the end of the novel.<sup>46</sup>

Stoker continues his commentary on the significance of collaboration between men and women through the men's learning that including Mina can only help their goal in killing Dracula. What leads the characters to succeed or fail in a mission depends not on the amount of information they have, but rather with whom they share it: It is not sufficient that the material be collected by firsthand observers and written down; it needs to be shared . . . It is information, gathered and arranged into a collaborative and comprehensive account, that enables the group to defeat Dracula.<sup>47</sup>

The most evident example of the causal link between cooperation between men and women and success is the men's full inclusion of Mina in Galatz. The men, specifically the more secretive Seward and Van Helsing, share information with Mina not only from the journals starting from the last point at which they had excluded her, but also their thoughts and ideas about Dracula. The men's inclusion of Mina in their ideas spurs her to create a plan that results in the group's success in tracking down and killing Dracula.

Mina's conception of the plan follows the simulation of birth, including conception, gestation, and delivery of a product from her data and others'. She executes conception, receives the data from the men in “all the papers that [she] [has] not yet seen”; she then gestates, combining the men's data with her own journals and ideas: “Whilst they are resting, I shall go over all carefully, and perhaps I may arrive at some conclusion.”<sup>48</sup> The mix of the ideas and data gestate until they create a new product of information, upon which Mina declares: “I have made a discovery.”<sup>49</sup> Finally, she literally delivers the information to the men—“my new conclusion is ready, so I shall get our party together and read it”—upon which her husband “[takes] [her] and his arms and kisse[s]” her and the other men eagerly congratulate her with

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<sup>46</sup> Ibid., 517.

<sup>47</sup> Leah Richards, “Mass Production and the Spread of Information in *Dracula*: “Proofs of so Wild a Story””, *English Literature in Transition, 1880-1920*, (2009): 440.

<sup>48</sup> Stoker, *Dracula*, 479.

<sup>49</sup> Ibid., 479.

praise and handshakes (common behaviours that follow successful childbirth).<sup>50</sup> Mina's procreation of the now fully inclusive information is rewarded two-fold; she succeeds in both spheres, creating the winning plan to defeat Dracula while in the public sphere, and creating a healthy baby in a happy marriage in the private sphere.

Stoker challenges the idea that women's place should ultimately be solely in the private sphere in the final scene of the novel. While the novel ends with Mina as a mother of a young boy, Mina's position of mother does not act to discount the value or success of her position as a public sphere worker. Scholars like Fleissner often interpret the final scene as Stoker returning Mina to the domestic world without access to the public sphere: "By telling us that the fruit of her womb constitutes an appropriate substitute for the 'mass of type-writing' she had previously produced, the text manages both to align the two as equivalents and to read them as ineluctably narrative."<sup>51</sup> Yet, the final scene shows that the boy has not truly substituted her work, as they appear in the concluding pages with the type-writing receiving more of the group's attention than the child. In fact, the texts are the true sign of the allies' happiness and success, not the Harkers' child: Mina's "manuscripts, because of their content, become the means of controlling both Dracula and the anxieties, both cultural and informational, that the novel embodies."<sup>52</sup> Though the child represents the goodness of the world winning over Dracula's evil (as both the promise of the future and proof of Mina's purity after Dracula has shared his blood), it is the compilation of journals that alleviates cultural anxieties and evokes the sense of triumph and resolution at the conclusion of the novel.

While Van Helsing bounces the Harker child on his knee and the remaining members of the group reminisce about their adventures, Harker decides to retrieve the manuscripts from a safe and share them, choosing to focus on the texts and not his child. Instead of interacting with the child or discussing marital bliss, as both Seward and Godalming have married since defeating Dracula, the characters

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<sup>50</sup> *Ibid.*, 482.

<sup>51</sup> Fleissner, 'Dictation Anxiety' 447.

<sup>52</sup> L. Richards, 'Mass Production', 448.

discusses the authenticity of the texts, noting the composition and organization of the journals as well as the proportion of authorship among the group members within the writing. Imitating a type of French salon in which they gather to discuss literature and philosophy, the group's reunion then becomes a public place in which they converse on publicly disseminated information rather than on the private sphere of the home.

Stoker ends the final lines of the novel on the lasting effect of women's participation in producing information and knowledge, underlying its importance within the novel and Stoker's society. Although it is Harker's journal entry, Van Helsing gets the final word; however, Harker's description, "Van Helsing summed it all up as he said, with our boy on his knee" is arguably too harmonious an ending (complete with blissful child and overly conclusive summation), to not convey a moral message from Stoker.<sup>53</sup> However, Stoker's moralistic last lines offer conflicting views on the separation of the private and public spheres and information's place among them. Van Helsing's summation consists of seeming contradictions in both the boy and the manuscripts. He states:

This boy will some day know what a brave and gallant woman his mother is. Already he knows her sweetness and loving care; later on he will understand how some men so loved her, that they did dare much for her sake.<sup>54</sup>

The boy, the end goal of Mina's career and mark of her return to the private sphere, is supposed to replace the texts in his being a physical product of motherhood whereas the texts are merely are metaphorical training for motherhood. However, he is superseded by the texts in the end, as he must rely on them for information about his parents' deeds. The child is male, so he is the traditional person to move from the private sphere to the public as he becomes as a man, citizen, and professional, yet it is his mother who remains partially in the public sphere in having her works consistently used, seen in the reading and ensuing discussion during the Agents' reunion as well as in the future

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<sup>53</sup> Stoker, *Dracula*, 517.

<sup>54</sup> *Ibid.*, 517.

when her son will read it. The continual reading and rereading of Mina's journal compilations throughout several years implies the men's ultimate realization of the value in disseminating information; Mina's accomplishment of maintaining her achievements in both the public and private spheres produces the happy ending and seemingly conveys Stoker's wish for an inclusive, informed society.

Stoker both supports and subverts the ideas of connecting the separate public and private spheres in Mina and her navigation through both spheres. In defeating Dracula and maintaining readership of her published work, Mina offers proof that a woman can successfully enter the public sphere, with evidence in the final scene that she may retain access to it if she so desires. While on the surface, Mina seems to have single-handedly brought the separate spheres together, yet there is small evidence to the contrary. Her lack of publications after defeating Dracula suggests that perhaps Stoker's promotion of Mina into the public sphere is merely training for her motherhood and that her rightful place is only in the private sphere. Perhaps she is only able to perform so well in the public sphere because she has a "man's brain," meaning the loss of access to the public for any woman with a woman's brain. Looking at the evidence in the novel and within the critical field – and producing new information from the combination – it seems that Stoker attempts to support women's entrance in the public sphere and their equal share of public information.

His subversion of women's power in the public domain, seen in his not letting Lucy prove her maternal ability to handle public information, then becomes a statement on men's exclusion of women, not Stoker's cultural ideals. Perhaps giving Mina both men's and women's parts ("man's brain" and "woman's heart") is Stoker's unique way of bringing the two genders closer together, just as Mina does with the two spheres. Regardless, he "tries to show that modern women can combine the best of the traditional and the new when he creates the heroine of Dracula - Mina Harker."<sup>55</sup> Whether he achieves a fully empowered heroine through his pregnancy-related language is

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<sup>55</sup> Carol Senf, "'Dracula': Stoker's Response to the New Woman", *Victorian Studies* 26, no. 1 (1982): 49.

subjective, but his delivery of a gender-driven examination of his contemporary society is clear.

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## Public Art as Counter-Monuments: Public Engagement with the Commemoration of Traumatic Pasts

Monica Parisa Rabii<sup>1</sup>

### Abstract

The post-modern era has seen the rise of what public historians often refer to as the pluralization and democratization of narrative-making, especially with regards to traumatic memories.<sup>2</sup> These narratives often deal with the remembrance of state-sanctioned violence, reflective of the hope that in diversifying and multiplying memorial narratives, perhaps there can be greater justice for the individual victims of these horrific pasts. While much has been done in memory and commemoration studies to trace these movements and trends, there is little analysis on the mediation of the memorials themselves, specifically of those that are not commissioned by the state or a national institution. To what extent, then, do such public memorials and commemoration projects engage, and therefore, arguably reflect, their publics? The aim of this paper is to analyze the varying degrees of shared-authority possible in public commemorations, using two of the most well-known grassroot public commemoration projects as a comparative case study: the “stumbling-block” memorials to victims of the Holocaust, and the “memory tiles” dedicated to the victims of Argentina’s Civic-Military Dictatorship. Though they are similar in their aesthetic re-inscriptions of space and memory, they diverge greatly in their processes of public engagement. As much as there has been an emphasis on the responsibility to democratize these narratives, there should be a responsibility to constantly assess them as well. Otherwise, these traumatic histories and the memorials of these victims are at risk of becoming static symbols rather than dynamic tools that can offer up *relevant* reflections in the present.

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## Introduction

The rise of counter-monuments in the post-modern world is not surprising, when considering their usefulness as tools to commemorate particularly traumatic historical narratives. If traditional monuments typically conjure images of the nation and state, then the symbols used to memorialize acts of state-sanctioned violence must be decidedly different—in both process and form. The symbol must be a “monument against itself.”<sup>3</sup> However, the commemoration of traumatic memories faces an aesthetic problem: how do we present that which is unrepresentable? Since the 1980s, public art has been utilized to find nuanced answers to this question. In line with trends of post-modernity, public art in this period is characterized by its move toward the “democratization” of its processes and forms, with public engagement at its center<sup>4</sup>. But what does this democratization of the engagement with the public look like in commemoration, and are there varying degrees? This paper looks specifically at the pavement art projects of Gunter Demnig’s *Stolpersteine* (“stumbling stones”) that commemorate victims of National Socialism in Germany, as well as the *baldosas por la memoria* (“memory tiles”) created by community organizations in Argentina in memory of those who disappeared under the Civic-Military Dictatorship from 1976-1983. In doing so, this argument analyzes the extent to which these two aesthetically similar public art works reflect this trend. They showcase the nuances in the democratization of authority both aesthetically, in terms of the practice of remembering in public space, and in their engagement with public audiences throughout their creation, reflective of the agenda of the individuals and groups mediating the process. Though the effects of the works on the urban landscape are similar, they illustrate two different approaches whereby (and degrees to which) shared authority can be obtained in the creation of public memory.

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<sup>3</sup> James E. Young, “Germany’s Memorial Question: Memory, Counter-Memory, and the End of the Monument,” *South Atlantic Quarterly* 96, no. 4 (1997): 880.

<sup>4</sup> Suzanne Lacy, *Mapping the Terrain: New Genre Public Art* (Seattle: Bay Press, 1994.), 20.

## Public Art as Counter-monument

We must situate the *stolpersteine* and the *baldosas de memoria* in their historical context, against which their forms are framing themselves, regardless of the artists' intentions<sup>5</sup>. By doing so, we can understand and compare these projects' symbolic and aesthetic impact on public and urban space, as well as their dialogue with public audiences. Traditional monuments before the World Wars were created by and for the nations' elite, using highly stylized symbols that the public could "de-code" to grasp a national narrative; in contrast, the modernist counter-monuments of the 1960s were minimalist in design and did not offer such symbols, thereby allowing for wider interpretations from the public.<sup>6</sup> However, the irony of these counter-monuments was that their minimalism itself was later considered a form of aesthetic elitism. In response, the counter-monuments from the 1980s onwards utilized a modern aesthetic and spatial component, but remained easily decodable to the public, yielding an "open-ended amount of ways for the receiver to interpret."<sup>7</sup> Public art, and specifically works used in commemoration, would strive to speak to wider audiences within the vague characterization of "public."

To reach wider audiences and democratize its ownership by the public, the counter-monuments of the post-modern era moved away from singular, national narratives and instead emphasized many individual experiences. Similarly, the actors behind these memorials were also diversified. Local community groups and artists would cultivate their own "grassroots" memorials as the investigations into the multitude of individual stories would naturally need a much larger taskforce. Art historian Suzanne Lacy called this democratization of art and its engagement "new genre public art."<sup>8</sup> While the term "public art" has traditionally been applied to installations in public spaces, "new genre public art" incorporates engagement as part of its

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<sup>5</sup> After initial introduction I will refer to the two works as *stolpersteine* or stumbling stones, and *baldosas de memoria* or memory tiles, using translation without quotations.

<sup>6</sup> Natalia Krzyżanowska, "The Discourse of Counter-Monuments: Semiotics of Material Commemoration in Contemporary Urban Spaces," *Social Semiotics* 26, no. 5 (2016): 470.

<sup>7</sup> *Ibid*, 471.

<sup>8</sup> "The term "new genre" has been used since the late sixties to describe art that departs from traditional boundaries of media." See Lacy, *Mapping the Terrain*, 20.

“aesthetic language.”<sup>9</sup> Lacy’s term directly correlates to the concept of the counter-monument, though the latter has often been misunderstood or oversimplified. It is within this social context that “new genre public art” came to be: prioritizing public engagement and dialogue as a central aspect of its aesthetic. Turning now to the specific cases of the *stolpersteine* and the *baldosas de memoria*, we will reflect on the way these pavement art memorials interact with public viewers and space.

### **Pavement Memorials and Dialogues with the Public in Public Space**

Aesthetically and symbolically, the *stolpersteine* and the *baldosas de memoria* initiate similar interpretations and interactions among the work, the viewer and public space. In both cases, the concept is simple: the laying of stones and tiles inscribed with the victims’ names in the pavement before their places of residence, work or study; or the last places they were seen. Though the two have slightly varied inscriptions and imagery, within each project, the individual pieces are largely uniform. The *stolperstein* are considered the “largest commemorative art project;” started in 1995 by German artist Gunter Demnig over 43,000 stones have been placed in over 1,000 municipalities, including some outside of Germany.<sup>10</sup> In contrast, the *baldosas de memoria* were started in 2001 and have now reached over 500 tiles laid throughout Argentina; the main organization behind the project is often cited as Barrios X La Memoria Y Justicia, a collective of many neighborhood community groups.<sup>11</sup>

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<sup>9</sup> *Ibid.*, 19.

<sup>10</sup> Quentin Stevens and Mirjana Ristic, “Memories Come to the Surface: Pavement Memorials in Urban Public Spaces,” *Journal of Urban Design* 20, no. 2 (2015): 285.

<sup>11</sup> Diego Loyo Benegas, “Escribir su Nombre: Baldosas, Estrellas y Graffiti como Situaciones de Materialización en Las Entradas a La Vida,” *Revista Latinoamericana de Estudios sobre Cuerpos, Emociones Y Sociedad* 8, no. 20 (2016): 67.



Figure 1.



Figure 2.

The pieces are vibrant compared to their surroundings, making it “relatively easy for memorials to appropriate the public pavement.”<sup>12</sup> The general dullness of the pavement allows for the shining brass of the *stolpersteine* and the colorful mosaics of the *baldosas* to stand out and more readily catch a pedestrian’s eye—a tool to invite the remembrance of the victim in that space.

Both works contain symbols that viewers can readily de-code, whether consciously or not. The placement of the memorials on the ground, rather than on a building or a stand, give a feeling reminiscent of a burial. Additionally, the seriousness of the square form reinforces this somber symbolism.<sup>13</sup> However, in both cases, it is important to note and frequently mentioned by relatives of the victims that the memorial represents an “incomplete death” and therefore, an incomplete burial;<sup>14</sup> the remains of those individuals do not rest beneath their name. Although the works are not aiming for a single, spatial, collective remembrance, as would be the case in a more traditional memorial, the aesthetic minimalism of each piece has been argued as de-personalizing everyone.<sup>15</sup> But in an exhibition in 2000 entitled “Counter-monuments and Memory,” at the Museum of Modern Art in New York, curators like Roxana Maroci found that in artwork about “history and autobiography” the symbolism for the “historical archive” represents the “memory process.”<sup>16</sup> The visual appearance of such public artworks is archival in nature and stripped away of illustrated imagery. As is expected when presenting traumatic experiences, the “inadequacy of representation serves to preserve the unfathomability of the event.”<sup>17</sup> The only images often allowed in these works are those of the faces of victims, again reinforcing the intersection of history and autobiography. The visual representation of an archive also

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<sup>12</sup> Quentin and Ristic, “Memories Come to the Surface,” 284.

<sup>13</sup> Krzyzanowska, “The Discourse of Counter-monuments,” 477.

<sup>14</sup> Benegas, “Writing their name,” 68.

<sup>15</sup> Krzyzanowska, “The Discourse of Counter-monuments,” 476.

<sup>16</sup> Roxana Marcoci, “Counter-Monuments and Memory,” *MoMA* 3, no. 9 (2000): 3.

<sup>17</sup> Thomas Stubblefield, “Do Disappearing Monuments Simply Disappear? The Counter-Monument in Revision,” *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism* 8, no. 2 (2011): 9.

unconsciously allows the viewer to de-code that this is one of many inscriptions and individual narratives.

These counter-monuments are aptly located in what Henri Lefebvre considers “counter-space,” which opposes “the dominant organization of space and which refuse[s] a predatory logic of capital: they are places valorized in terms of use value rather than exchange value.”<sup>18</sup> Similarly, the pavement art works underline an intersection between practical use and symbolic use. The artworks democratize remembrance on the urban landscape by re-inscribing highly accessible mundane public spaces. In such places, the *stolpersteine* and *baldosas de memoria* also re-inscribe small sections of space as sacred. We see this re-inscription in the way the public has shifted its interactions with space—stopping to leave flowers, candles and photos; and even bending over to touch or clean the site.<sup>19</sup> Paradoxically, the memorial on mundane public pavement also emphasizes the violence of being forced *outside* of the buildings the individuals once inhabited and “the displacement of marginalized groups from private property,” symbolizing that the public “street is the only place left” for these individuals.<sup>20</sup>

The placement of the stones and tiles in front of buildings relevant to the victims’ lives also evokes realities of the past in that place and therefore makes the past more tangible in the experience of the location’s present use. It therefore can re-inscribe the space in two ways for two different audiences: for those who pass by the building infrequently and those who enter and repeatedly view the work. In either case, they “alter their approach to the space and the space they inhabit,”<sup>21</sup> whether this be by noticing it for the first time and taking a moment to read, or purposefully walking around the path when they know it is there, or walking over it even if they do (awareness and subsequent dismissal of the object is also considered an interaction). Pedestrians who do not notice the work only reinforce the reason for the creation of the *stolpersteine* and *baldosas de memoria*: if they are not

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<sup>18</sup> Fran Tonkiss, *Space, the City and Social Theory*, (Cambridge: Polity Press, 2005.), 64.

<sup>19</sup> Krzyzanowska, “The Discourse of Counter-monuments,” 479.

<sup>20</sup> Stevens and Ristic, “Memories Come to the Surface,” 281.

<sup>21</sup> Krzyzanowska, “The Discourse of Counter-monuments,” 479.

remembered, they are marginalized and silenced in the present as well as the past.

### **Authority, Agenda, and Public Engagement**

While both pavement memorial projects attempt to re-inscribe the present public space with the past of the traumatic memory they are commemorating, they fall on opposite sides of the spectrum in terms of their processes of sharing authority with those who mediate them, as well as the public engagement that makes them part of *new genre public art*. These differences in the willingness to share authority over the work make sense when we consider the opposing viewpoints of professional artists and community activists. For the former, the project is their lives' work as much as it is a tool for public commemoration; for the latter, it has the agency to serve a more explicit political agenda. It is not surprising, then, that the engagement on the *stolpersteine* is more front-end, where members of the public propose locations and victims with their own research. In contrast, the memory tiles interweave "stages of engagement" between the local community and the network of organizations throughout the entire process.<sup>22</sup> These differences in mediation are reflected in the outward representation of the process to the public (as both spectators and potential collaborators) and illustrated in the language and online presence of the projects. Upon closer reflection, these differing levels of democratization in creating public memory also highlight the differences in the agendas of those who express authority over the projects.

Demnig's *stolpersteine* are exactly that—*his* stumbling stones—and they are readily attributed and referenced as his works. Oppositely, the difficulty in naming any one person or entity as the "owner" of the *baldosas de memoria*, even if only aesthetically, illustrates that they are highly engaged with various "publics" at various levels. Though the group Barrios por La Memoria y Justicia is the most noted organization accredited with the creation of the memory tiles, it is an umbrella term for various community groups that are constantly changing and interacting with other organizations to expand the project as much as

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<sup>22</sup> Benegas, "Writing their Name," 66.

possible.<sup>23</sup> Tracing official online sites for the memorial tiles is much more difficult than for the *stolpersteine*. Demnig has his own official site dedicated to the project, complete with contact and proposal rules.<sup>24</sup> On the other hand, the memorial tiles have a never-ending amount of spin-off sites on different media: Barrios Por La Memoria Y Justicia only has a Facebook page,<sup>25</sup> a platform for multiple projects; numerous humanitarian organizations' webpages feature how to get involved with the laying of tiles, to view them, and to take part in similar projects.<sup>26</sup> Even the online footprint of the memory tiles is shared. Comparing the images on these sites, too, we are painted two very different pictures: Demnig's site frequently showcases images of him laying the *stolpersteine*, often alone (only a few images show other people helping), while the images of the laying of *baldosas* depict huge crowds, speeches, and vigils alongside the installation. Demnig illustrates an installation of artwork, while the latter looks ceremonial.

Throughout the processes of creating either work, the differing stages explain the contrasting tones of these concluding events. If an individual or group wants to create a *stolpersteine*, the official website explains in extreme detail the process, which includes: gaining local permission, submitting proposals to Demnig's team, what inscriptions can look like, appointments and instructions for the day of installation, and costs (€120 for the creation and laying of each *stolpersteine*).<sup>27</sup> In terms of an "investigation" into the victims' history, all parts of the process are placed on the public. Outside of a few online interactions for such practicalities, the public never actually directly engages with Demnig until the day of the laying. Understandably, the formulaic outline of the engagement is due to the logistics of such a project—

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<sup>23</sup> "Baldosas de La Memoria," Público Espacio para La Memoria y para La Promoción y Defensa de Los Derechos Humanos, accessed November 7, 2017, [http://espaciomemoria.ar/baldosas\\_memoria](http://espaciomemoria.ar/baldosas_memoria).

<sup>24</sup> "Technical aspects," Stolpersteine, accessed November 7, 2017, <http://www.stolpersteine.eu/en/technical-aspects>.

<sup>25</sup> "About," Coordinadora de Barrios por Memoria y Justicia, accessed November 7, 2017, <https://www.facebook.com/coordinadorabarriosxmemoriayjusticia>.

<sup>26</sup> "Público Espacio para La Memoria y para La Promoción y Defensa de Los Derechos Humanos" is the only organization with a dedicated web page (outside of social media pages) dedicated to the baldosas de memoria project.

<sup>27</sup> "Technical Aspects."

Demnig's website logs his travels over the past two decades, and he is on the road for installations about 300 days a year.<sup>28</sup> The more he engages with each member of the public, obviously the longer each stone will take. Additionally, in only rare instances are individuals who proposed a *stolpersteine* able to complete the installation without Demnig present; this has only occurred when he has already laid a *stolpersteine* in that community, as he is trying to get to as many new areas as possible with the high-demand).<sup>29</sup> This requirement for Demnig's presence directly illustrates his role as the leading authority on the project. As an artist, one of his leading concerns is credit for his work.

The memory tiles exist on the other end of the spectrum of sharing authority with the public. The various groups an individual can contact to get involved with the creation of a tile, as well as the tiles themselves, do not have any technical or formal procedures about the process readily available. The individual simply reaches out to the listed contact online and the interaction goes from there. The online testimonies of those who have been involved reflect similar experiences, usually following this order: First, the organizations, neighborhood communities and family members investigate the life of the victim; next, they "localize" the victim's life by finding the location for the tile; then they enlarge the network of possible collaborators by reaching out to all those who might have known the person; afterward, they hold the first community event of creating the tile together; they gain permission for the installation from municipality and local residence; and finally they hold the second community event of laying the tile.<sup>30</sup> Of course, the stages of the creation are mediated (just like Demnig's stones) by the various organizations, but the explicit attempts to involve and share the creation of the narrative with as many people as possible reflect the project's emphasis on community-building and activism.

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<sup>28</sup> "Timetable," *Stolpersteine*, accessed November 7, 2017, <http://www.stolpersteine.eu/en/timetable>.

<sup>29</sup> "Technical Aspects."

<sup>30</sup> Benegas, "Writing their Name," 66.

As important as the events that mark the creation and laying of the tiles is the power of the communities collaborating throughout the process—creating new networks, strengthening existing ones, and even possibly mending or re-connecting lost relationships. In both public works, we see the shift of commemoration from “aesthetic to social convention” that is typical of counter-monuments.<sup>31</sup> It is important in both processes that they are democratic in nature, perceived as “non-authoritarian,” and contrasted with the memory of violent authoritarian rule. However, this importance does not mean the projects and the creators themselves “dispense of authority” altogether; after all, authority is needed to “oppose fascism.”<sup>32</sup> What we see in these two cases is the authority of the artist and the activist, each using public engagement to different degrees and thereby reinforcing their separate roles. As a result, the way in which each project interacts with the concept of resistance and justice is markedly different. While the *stolpersteine* are an artistic form of “symbolic” reconciliation, the *baldosas de memoria* are part of a movement towards “procedural justice.”<sup>33</sup>

Max Page argues that there is often a tendency to “separate public memory from procedural justice.”<sup>34</sup> Yet the memory tiles are directly tied to calls for justice in the present: communities engaged in their creation often rally, as well as take to court any individuals who are linked to a disappearance (such as factory owners who submitted to the state the names of their employees, whom they suspected of engaging in leftist politics).<sup>35</sup> After 1983, there were attempts to prosecute such individuals, including the investigation known as “Nunca Mas,” which started under President Raul Alfonsin. However, these attempts were later stopped completely, with most people convicted later pardoned under the presidency of Carlos Menem the

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<sup>31</sup> Wildrich, “Performative Monuments,” 166.

<sup>32</sup> *Ibid.*, 178.

<sup>33</sup> Max Page, “The Arc of Memory and the Arc of Justice,” *Massachusetts Review* 54, no. 2 (2013): 243.

<sup>34</sup> *Ibid.*, 244.

<sup>35</sup> Bettina, D’Alessandro, “Communities Commemorate the Disappeared in Argentina’s Sidewalks,” *Global Press Journal*, July 24, 2013, <https://globalpressjournal.com/americas/argentina/communities-commemorate-the-disappeared-in-argentina-s-sidewalks>.

following decade.<sup>36</sup> For much of the public left traumatized by the acts of state violence, justice has yet to be reached, hindering the ability of communities and the state to move forward.<sup>37</sup> Adding to this tension, recent years have seen right-wing governments, such as that of current President Mauricio Macri, trivialize and contest commonly held knowledge of the numbers of those who went missing. In the spring of 2017, Macri stated that no one can be sure if there were “9,000 or 30,000” victims in the “tragic Dirty Wars;” this single comment started a movement called “Somos 30,000,” or “We are 30,000,” which unsurprisingly was led by many of the same community groups and humanitarian organizations behind the memory tiles.<sup>38</sup> This trivialization is a direct affront to them and the work they have done to restore the memory of those victims. These tensions underline the idea that successive Argentinian governments have reached for more abstract national reconciliation than any legal justice. Therefore, grassroots activism in the form of public commemoration has been used to “keep alive” the push for procedural justice.<sup>39</sup> As one neighborhood member involved in a tile project remarked, the idea is “to bring back the individual to the neighborhood, but in a setting of activism and justice.”<sup>40</sup>

Demnig’s *stolpersteine* reaches more toward this idea of national reconciliation, using commemoration’s symbolic power to constantly remember difficult pasts that would be much easier and convenient to relegate to less frequented, used, and shared spaces. Both projects emphasize the “usefulness of the past” in the present cityscape.<sup>41</sup> The *stolpersteine* use the past as a reminder to not let “history repeat itself,”

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<sup>36</sup> Page, “The Arc of Memory,” 244.

<sup>37</sup> Nora Strejilevich, “Collective Memory in Action (and in Motion),” *Massachusetts Review* 52, no. 3 (2011): 537.

<sup>38</sup> Carlos E Cue, “Miles de Argentinos Reivindican La Cifra Oficial de Desaparecidos: ‘Fueron 30.000,’” *El Pais*, March 25, 2017, [https://elpais.com/internacional/2017/03/24/argentina/1490385910\\_331028.html](https://elpais.com/internacional/2017/03/24/argentina/1490385910_331028.html).

<sup>39</sup> Page, “The Arc of Memory and the Arc of Justice,” 244.

<sup>40</sup> D’Alessandro, “Communities Commemorate the Disappeared in Argentina’s Sidewalks.”

<sup>41</sup> Bernard Eric Jensen, “Usable Pasts: Comparing Approaches to Popular and Public History,” in *People and Their Pasts: Public History Today*, ed. Paul Ashton and Hilda Kean. (Basingstoke: Palgrave Macmillan, 2009.), 43.

while the memory tiles use the process of commemoration for a more immediate political agenda. Quentin Stevens and Mirjana Ristic identify four aspects of symbolic power represented in the *stolpersteine*: “loss, concealment, unearthing, and recognition.”<sup>42</sup> Perhaps for the *baldosas de memoria*, we could add a final component: justice. Ultimately, both public art works are used as tools of political action in the present, where the issues of these traumatic pasts are constantly being negotiated within their current societies. In this way, public art in commemoration does not just reflect upon society; it also engages in the creation of future societies.

## Conclusion

We have used the *stolpersteine* and *baldosas de memoria* as case studies of counter-monuments in the form of “new genre public art.” By doing so, we have seen that closer analysis of the post-modern trends of democratization in public memory can be fruitful in understanding to what extent authority in collective trauma is shared in practice. Both works are aesthetically and symbolically similar in the ways that they alter interactions between the viewing public and re-inscribe urban space. However, though both engage with the public in the retrieval of memories, the community organizations of Argentina purposefully cast a wider net in that engagement than Demnig’s team. Their processes reflect two different degrees of shared authority, reflective of their dominant roles in each work: as artist or activist, reaching for symbolic or procedural justice. Yet by choosing to use public space as their medium, both projects send a message to their public: that any form of justice for the victims of these traumatic pasts depends on constant and collective remembrance in the present. The present act of remembering offered by these public projects make the mediums and mediators of these messages crucial to analyze as a means of constantly assessing their current relevance in society, and further, as possible lessons on enhancing our ability to collectively share authority, and responsibility, over these traumatic pasts.

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<sup>42</sup> Stevens and Ristic. “Memories Come to the Surface,” 283.

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### Legends to Figures

Figure 1: Stolpersteine laid in Berlin, Germany. Each is a 10cm x 10cm brass plaque often starting with "Here Lived..." followed by the name, date of birth, and dates and places of their arrest, deportation, or murder. Photo by author.

Figure 2: Baldosa de memoria laid in Buenos Aires, Argentina. Colors, imagery, and text may vary as they are created communally, but at minimum include their name and dates of the disappearance. Photo by author.

## **Validation of a DNA Methylation Panel for the Triage of HPV Positive Women in a HPV Primary Screening Population**

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### **Abstract**

The aim of this study is to evaluate triage options to manage HPV positive women from a primary HPV cervical screening programme. Host methylation factors have repeatedly shown to be hypermethylated in cervical cancer and pre-cancer and have the potential to triage women at high-risk of progression or who have CIN2+ precancerous lesions.

In partnership with CervicalCheck, the National Cervical Screening programme in Ireland (CERVIVA) are undertaking a longitudinal HPV primary screening pilot study which will evaluate several triage strategies for management of a HPV-positive primary screening test. We are recruiting 13,000 women attending for routine smear tests. HPV testing is performed using the Cobas HPV DNA test and all HPV positive samples are tested for a panel of methylation specific biomarkers [CAD M1 M18, MAL M1, hsa-miR124-2]. A validation panel of 200 samples with confirmed histology is being created to provide clinically relevant cut off points.

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To date 12,100 women have been recruited (median age 39 years). A subset of 183 samples (HPV Positive n=133; HPV negative n=50) with histology confirmed CIN1-3 (n=133), and no abnormality detected (NAD) (n=50) have been run as a validation panel to define clinically relevant cut off points for the detection of CIN2+. Inclusion of CIN2 samples is to follow to determine the panel's ability to differentiate relevant from non-relevant lesions. Once complete, all HPV positive women will have their methylation scores assessed. These women have consented to a 10 year follow up.

**Keywords:** HPV, DNA, public health, women's health, cancer

**Table of Abbreviations**

Atypical Squamous Cells of Undetermined Significance	ASC-US
β-Actin	ACTB
Cell adhesion molecule-1/18	CAD M1 M18
Cervical Intraepithelial Neoplasia	CIN
Confidence interval	CI
DNA methyltransferase enzymes	DNMT
Endoplasmic reticulum	ER
High-risk	HR
High Grade SIL	HSIL
Human Papillomavirus	HPV
Health Technology Assessment	HTA
Irish Health Information and Quality Authority	HIQA
Low Grade Squamous Intraepithelial Lesions	LSIL
Limit of Detection	LOD
Methylation Specific PCR	qMSP
Myelin lymphocyte proteolipid	MAL
Negative Predictive Value	NPV
No Abnormality Detected	NAD
Papanicolaou test	PAP
Retinoblastoma Protein	Rb
Squamous cell carcinoma	SSC
Squamous Intraepithelial Lesions	SIL
Ten Eleven Translocation	TET
Tumour suppressor in lung cancer	TSLC1
Vasculogenic mimicry	VM

**Introduction**

*1.1. Cervical Cancer*

Cancer is a disease that acts as an umbrella term for a host of conditions characterised by uncontrolled proliferation of cells. Th uncontrolled replication of cells can lead to localised damage or in the case of an invasive disease or can spread to other body regions and cause serious and at times fatal damage to vital organs and processes in the body.

Due to the multitude of cells types in the body, there are many starting points for cancers to arise from, such as the lung, breast, brain, blood, prostate, and cervix. All have their own hallmarks and all require differing forms of detection and treatments that suits the individual cancer and patient. Ideally, the early detection of these malignant cells will allow for the early detection of a prospective cancer and therefore swift and usually less severe treatment can begin, generally leading to a better outcome for the patient. Unfortunately, not all cancers are able to be screened, with breast, lung, cervical, prostate and colon (limited effectiveness) being some of the exceptions. Considerable efforts are underway to allow more cancers to be screened as well as intensive research into improving current screening programmes.

Currently cervical cancer is the fourth most common cancer in women worldwide and the seventh most common cancer overall with most incidences occurring in developing countries. This is mainly due to the absence or poorly equipped screening programmes.<sup>8</sup> In Ireland the incidence for in-situ cervical cancer (cancers still in its original place) is 115.1 per 100,000 and for invasive cervical cancers it is 11.5 per 100,000. Mortality rates for invasive cancer is 3.8 per 100,000.<sup>9</sup> The term cervical cancer is an overarching term for cancers of the cervix and there are several distinct cancer types found in cervical cancers. Squamous cell carcinoma (SCC) is the most common type typically accounting for 90% of cervical cancers worldwide. SCC is preceded by a pre-invasive stage known as Cervical Intraepithelial Neoplasia (CIN) graded CIN1-3 corresponding with disease severity. These pre-cancerous abnormal cells can develop in to a cancerous cell if left

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<sup>8</sup> F.A. Tavassoli and P. Devilee, eds., *World Health Organization Classification of Tumours. Pathology and Genetics of Tumours of the Breast and Female Genital Organs* (Lyon: IARC Press, 2003).

<sup>9</sup> M. U. Barut, A. Kale, U. Kuyumcuoğlu, M. Bozkurt, E. Ağaçayak, S. Özekinci, and T. Gul, "Analysis of Sensitivity, Specificity, and Positive and Negative Predictive Values of Smear and Colposcopy in Diagnosis of Premalignant and Malignant Cervical Lesions," *Medical Science Monitor: International Medical Journal of Experimental and Clinical Research* 21 (2015): 3860–3867.

untreated. Adenocarcinoma accounts for the other cases of cervical cancer and involves glandular cells of the cervix (Glandular CIN).<sup>10</sup>

### 1.2. Detecting cancerous/pre-cancerous cells.

The Papanicolaou test (PAP) is the main method for detection of cancerous/pre-cancerous cells. The PAP test is performed on a cytology specimen which is a sample of the woman's cervical cells collected by a trained smear taker and suspended in a preservation solution (PresevCyt). If abnormalities are detected in women they are referred to colposcopy for a biopsy and histological confirmation of disease. Although a PAP test has a reasonable specificity for cervical cancer (~76%) it lacks sensitivity (~57%) and demonstrates limitations with reproducibility due to the subjective nature of the test.<sup>11</sup> Findings can range from Negative to abnormal findings of Atypical Squamous Cells of Undetermined Significance (ASC-US), Low Grade Squamous Intraepithelial Lesions (SIL) (LSIL), High Grade SIL (HSIL). Usually these cytological findings will correlate with CIN such as LSIL correlating with CIN1/2 and HSIL correlating to CIN3 on histology but this is not always the case.

### 1.3. HPV

Infection with the Human Papillomavirus (HPV) is the main risk factor for cervical cancer and pre-cancer. Over 90% of cervical cancers are caused by high-risk (HR) HPV types. Of the 14 currently known HR-HPV types it is HPV16 and 18 that are associated with ~70% of cervical

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<sup>10</sup> J. Cuzick et al., "Overview of the European and North American studies on HPV testing in primary cervical cancer screening," *International Journal of Cancer* 119 (2006): 000-000.

<sup>11</sup> J.M Walboomers, M.V. Jacobs, M.M. Manos, et al. "Human papillomavirus is a necessary cause of invasive cervical cancer worldwide," *The Journal of Pathology* 189 (1999): 12 – 19; International Agency for Research on Cancer, *Biological Agents: Volume 100B A Review of Human Carcinogens*, IARC Monographs on the Evaluation of Carcinogenic Risks to Humans Human Papillomavirus Monograph (Lyon: International Agency for Research on Cancer, 2007), pp. 255 – 296, accessed 26 July 2017. <http://monographs.iarc.fr/ENG/Monographs/vol100B>.

cancers.<sup>12</sup> Over 150 subtypes of HPV are known to infect humans but only a select few are known to cause cancers and pre-cancers.<sup>13</sup>

Initial infection with HPV initiates viral replication of HPV's episome using the host's replication machinery. Most infections represent transient infections which will clear without developing a clinically significant lesion. Those that do not clear can lead to transforming infections resulting in replication, propagation and cellular abnormalities (see Figure 1).<sup>14</sup> Upon integration, there is an increased expression of E6 and E7 oncogenes. E6 interacts with p53 while E7 interacts with Retinoblastoma Protein (Rb) (see Figure 2). Loss of p53 leads to loss of cell cycle control, DNA repair and apoptosis. Loss of RB function impacts the cell cycle control.<sup>15</sup> These functional losses allow unregulated cell proliferation to occur and initiate oncogenic potential in affected cells.<sup>16</sup>

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<sup>12</sup> Emma J. Crosbie et al. "Human papillomavirus and cervical cancer," *Lancet* 2013 382, no. 9895 (2013): 889–899.

<sup>13</sup> K.P. Saavedra, P.M. Brebi, and J. C. S. Roa, "Epigenetic alterations in preneoplastic and neoplastic lesions of the cervix," *Clinical Epigenetics* 4, no. 1 (2012): 13.

<sup>14</sup> Saavedra, Brebi, and Roa, "Epigenetic alterations in preneoplastic and neoplastic lesions of the cervix," 13.

<sup>15</sup> D. T Gómez and J. L. Santos, "Human Papillomavirus Infection and Cervical Cancer: Pathogenesis and Epidemiology," in *Communicating Current Research and Educational Topics and Trends in Applied Microbiology*, ed. A. Mendez-Vilas (Badajoz: Formatex, 2007), pp. 680 – 688.

<sup>16</sup> Gómez and Santos, "Human Papillomavirus Infection and Cervical Cancer," pp. 680 – 688.

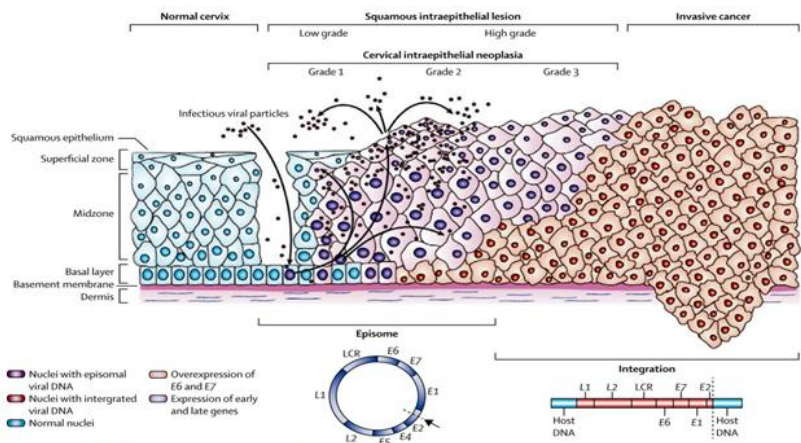


Figure 1. HPV Life Cycle and Genome Organisation  
HPV infects the basal layer of epithelium. If not resolved, episomes may integrate into the hosts DNA and is generally accompanied by a progression into higher grade pre-cancer/invasive cancer.

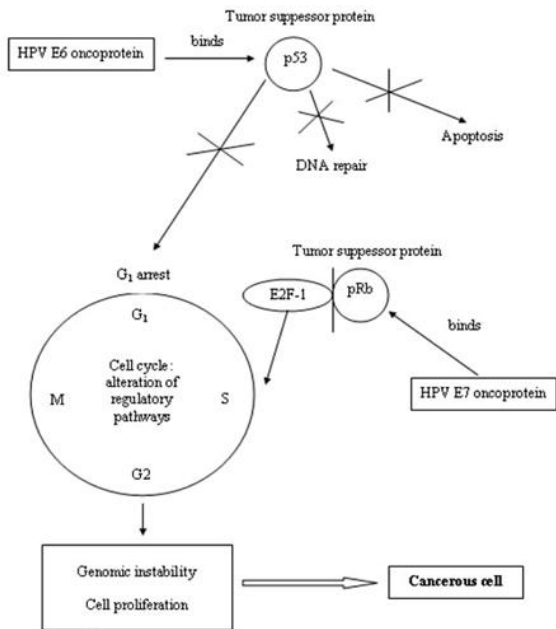


Figure 2. E6 & E7 cellular Interactions

#### 1.4. Current Screening Practice

Ireland runs a National Cervical Screening Programme (CervicalCheck) which provides free smears to all women aged 25-60. CervicalCheck currently employs cytology based screening with HPV triage of women with for all low-grade abnormalities (ASC-US/LSIL) (see Figure 2)<sup>17</sup> Figure 3 below outlines the current screening practice.<sup>18</sup>

Cervical Screening Process Chart

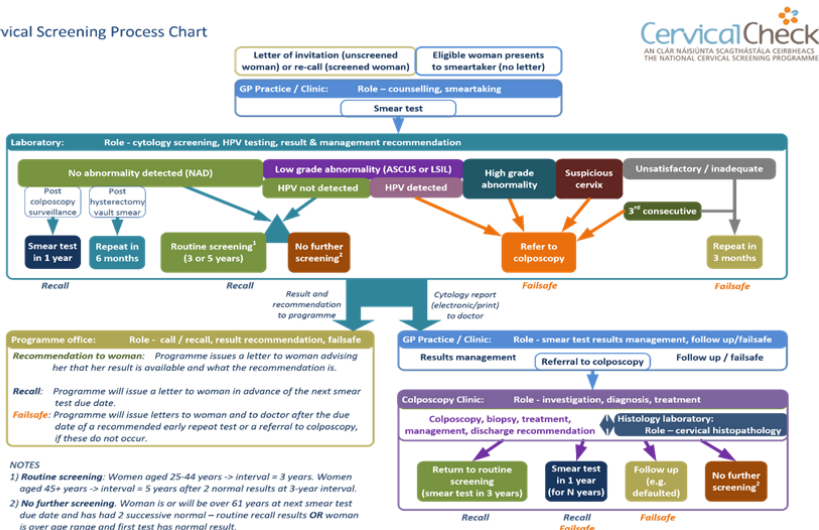


Figure 3. CervicalCheck Screening Protocol

The current screening algorithm dictates that if a result of NAD is detected the woman maintained in routine screening. If a low grade (ASC-US/LSIL) abnormality is detected, the woman is triaged using HPV DNA testing. If HPV negative, the woman returns for routine screening. If she is HPV positive she is referred to colposcopy. If the woman shows a high-grade abnormality, she is referred to colposcopy with no HPV triage. Women with an unsatisfactory smear have a repeat smear in 3 months.

<sup>17</sup> CervicalCheck, Programme Report 2014/2015, accessed 3 August 2017.  
<https://www.cervicalcheck.ie/screening-information/information-resources.137.html>.

<sup>18</sup> CervicalCheck. Cervical Screening Process Chart, 2015, accessed 5 July 2017.  
<https://www.cervicalcheck.ie/information-for-health-professionals/essential-documents.3828.html>.

### 1.5. HPV testing

Due to the role of HPV in cervical cancer, HPV testing has been proposed as a form of screening. Many studies have looked at HPV screening and concluded that HPV is an effective primary screening test.<sup>19</sup>

In May 2017, The Irish Health Information and Quality Authority (HIQA) published Health Technology Assessment (HTA) on the use of HPV DNA testing as the primary cervical screening method. The HTA recommended primary HPV testing with cytological triage every 5 years for women aged 30-65 and every 3 years in women aged 25-30.<sup>20</sup>

However, while HPV DNA testing has a very high Negative Predictive Value (NPV), it has a low specificity. Another option for HPV primary screening is the detection of HPV E6/E7 mRNA in lieu of HPV DNA testing. The HPV mRNA Aptima test has been shown to

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<sup>19</sup> Crosbie et al. "Human papillomavirus and cervical cancer," 889–899; Q.J. Pan, S.Y. Hu, H.Q. Guo, et al., "Liquid-based cytology and human papillomavirus testing: a pooled analysis using data from 13 population-based cervical cancer screening studies from China," *Gynecologic Oncology* 133, no. 2 (2014): 172 – 179; K.M. Elfstrom, V. Smelov, A.L. Johansson, et al., "Long term duration of protective effect for HPV negative women: follow-up of primary HPV screening randomized controlled trial," *BMJ* 348 (2014): g130; J.T. Cox, P.E. Castle, C.M. Behrens, et al., "Comparison of cervical cancer screening strategies incorporating different combinations of cytology, HPV testing, and genotyping for HPV 16/18: results from the ATHENA HPV study," *American Journal of Obstetrics & Gynecology* 208, no. 3 (2013): 184.e1 – 184.e11; M.H. Stoler, T.C. Wright Jr, A. Sharma, et al., "High-risk human papillomavirus testing in women with ASC-US cytology. Results from ATHENA HPV study," *American Journal of Clinical Pathology* 135 (2011):468 – 475; G. Ronco, J. Dillner, K.M. Elfström, et al., "The International HPV screening working group. Efficacy of HPV-based screening for prevention of invasive cervical cancer: follow-up of four European randomised controlled trials," *Lancet* 383 (2014): 524 – 532; G. Ronco, P. Giorgi-Rossi, F. Carozzi, et al., "Efficacy of human papillomavirus testing for the detection of invasive cervical cancers and cervical intraepithelial neoplasia: a randomised controlled trial," *Lancet Oncology* 11 (2010): 249 – 257.

<sup>20</sup> Health Information and Quality Authority, *Health Technology Assessment of Human Papillomavirus Testing as the Primary Screening Method for Prevention of Cervical Cancer* (HIQA, 2017), pp.1-389, accessed 5 July 2017. <https://www.hiqa.ie/reports-and-publications/health-technology-assessment/hta-hpv-testing-cervical-cancer-screening>.

have equivalent sensitivities and specificities as well as the potential to discriminate between relevant and non-relevant infections.<sup>21</sup>

Regardless of whether HPV DNA or mRNA is used in a HPV primary screening setting appropriate protocols to stratify HPV positive women are essential to avoid over-referral and over-treatment. Several biomarker options exist including co-expression of p16INK4a/Ki-67 and detection of methylation biomarkers. These offer a more specific triage of HPV positive women. For this paper CAD M1 M18, MAL M1 and hsa-mir-124-2 are the three methylation markers that will be studied. CERVIVA (Irish Cervical Screening Research Consortium) through its HRB funded CARG [CARG29/2012] programme is evaluating these options to stratify women with a HPV positive primary screening smear.

### 1.6. *Methylation Biomarkers*

#### 1.6.1. DNA Methylation

DNA methylation is a process by which methyl groups are added to DNA. Often occurring within gene promoters, DNA methylation typically acts to repress gene transcription (see Figure 4**Error! Reference source not found.**). Altered methylation patterns have been observed in genes of many cancers (for instance, ovarian, breast, cervical, colon, brain, or skin).<sup>22</sup> Some methylated genes in cancers give a select survival advantage for the cancer cell such as methylated tumour suppressor genes (e.g. INK-4ARF) while others may have no impact on survival but are commonly methylated during the oncogenic process. Regardless, common methylation sites can be used as indicators of an altered cell and thus a potential biomarker in the detection of cancerous cells.

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<sup>21</sup> Matejka Rebolj, Sarah Preisler, Ditte M. Ejegod, Jesper Bonde, Carsten Rygaard, Elsebeth Lynge, "Prevalence of Human Papillomavirus Infection in Unselected SurePath Samples Using the APTIMA HPV mRNA Assay," *The Journal of Molecular Diagnostics* 15, no. 5 (2013): 670 – 677.

<sup>22</sup> S. Vadakedath and V. Kandi, "DNA Methylation and Its Effect on Various Cancers: An Overview," *Journal of Molecular Biomarkers and Diagnosis* S2: 017 (2016): 1 – 5.

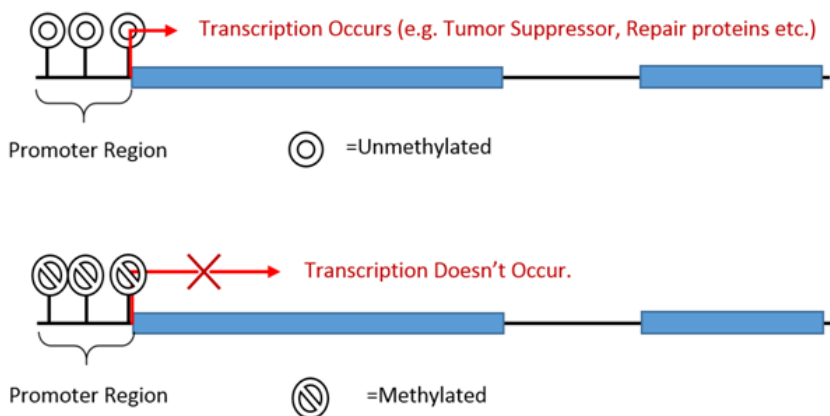


Figure 4 Unmethylated vs Methylated Promotor Region

The process of how DNA is methylated and unmethylated is known (use of DNA methyltransferase enzymes (DNMT) and Ten Eleven Translocation (TET) enzyme respectively) but the mechanism for targeted methylation is unknown and the question for whether common methylation sites in cancerous cells is due to a targeted methylation process or not is still unanswered<sup>23</sup>. Regarding cervical cancer and DNA methylation, HPV's E6 and E7 interact with p53 inhibition of the DNMT enzymes and release them from inhibition (see Figure 5). The upregulation leads to abnormal methylation patterns in the affected cell and there are several regularly hypermethylated regions of DNA that may potentially be used as indicators of disease.

<sup>23</sup> X. Liu et al., "UHRF1 targets DNMT1 for DNA methylation through cooperative binding of hemi-methylated DNA and methylated H3K9," *Nature Communications* 4 (2013): 1563; Garvan Institute of Medical Research, *DNA Methylation Biomarkers*, Online Video (4 March 2015), accessed 27 July 2017. <https://www.youtube.com/watch?v=UUM7HiFkDd4>; Garvan Institute of Medical Research, *DNA Methylation and Cancer*, Online Video, (11 November 2015), accessed 24 July 2017. <https://www.youtube.com/watch?v=W-S84J4zK9Eandt=13s>.

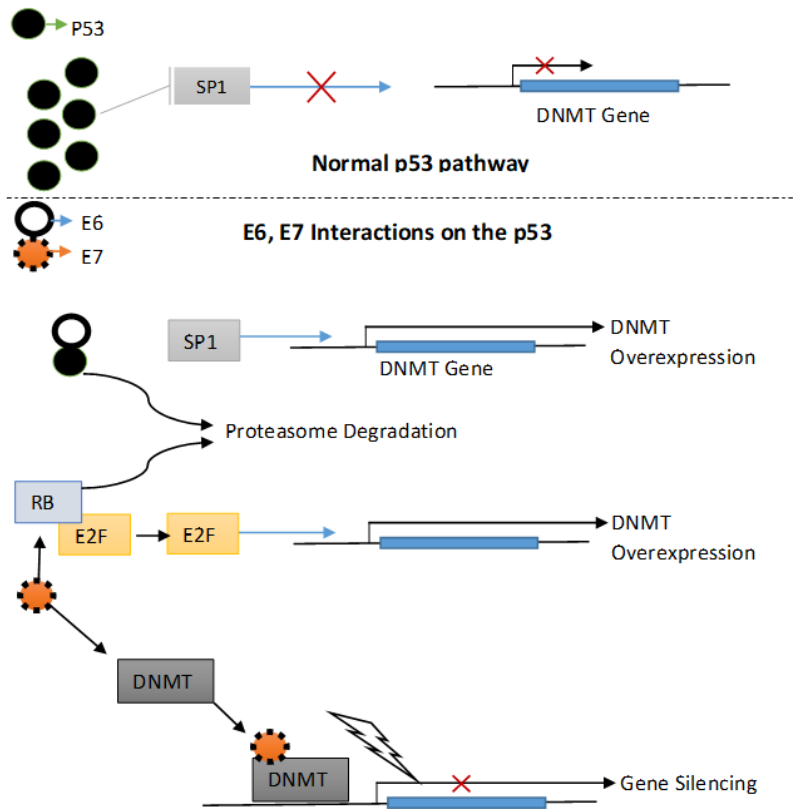


Figure 5. P53 Inactivation of the DNMT 1 gene is suppressed by E6. Rb inhibition of E2F (promotes G1 to S phase in the cell cycle) is suppressed by E7. Upregulation of DNMT enzyme and methylation of genes occurs.

### 1.6.2. CAD M1 M18

CAD M1 M18 (cell adhesion molecule-1/18) was originally described as a tumour suppressor in lung cancer (TSLC1). The gene encodes a member of the immunoglobulin superfamily and is involved in intracellular adhesion.<sup>24</sup> Loss of CAD M1 function is associated with

<sup>24</sup> M. Kuramochi, H. Fukuhara, T. Nobukuni, T. Kanbe, T. Maruyama, H.P. Ghosh, M. Pletcher, M. Isomura, M. Onizuka, T. Kitamura, et al., "TSLC1 is a tumour-suppressor gene in human non-small-cell lung cancer," *Nature Genetics* 24, no. 4 (2001): 427 – 430; Mari Masuda, Mika Yageta, Hiroshi Fukuhara, Masami Kuramochi, Tomoko Maruyama, Akio Nomoto &

reduced cell adhesion and suppression of tumourigenicity, invasion and anchorage-independent growth, this can lead to tumour cell invasion and metastasis. CAD M1 overexpression inhibits proliferation and can induce apoptosis in epithelial cells.<sup>25</sup>

#### 1.6.2.1. CAD M1 M18 and Cervical Cancer

Following genome methylation analysis, studies demonstrated CAD M1 methylation in most SCCs and in high-grade CIN lesions.<sup>26</sup> Studies indicate CAD M1 is a plausible biomarker for high-grade CIN and cervical cancer with a high sensitivity for CIN3 lesions. Many of these papers also included MAL M1.<sup>27</sup>

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Yoshinori Murakami, "The Tumour Suppressor Protein TSLC1 Is Involved in Cell-Cell Adhesion," *The Journal of Biological Chemistry* 277 (2002): 31014-31019.

<sup>25</sup> Hesselink, A.T. et al., "Combined promoter methylation analysis of CAD M1 and MAL: An objective triage tool for high-risk human papillomavirus DNA-positive women," *Clinical Cancer Research* 17, no. 8 (2011): 2459–2465; T. Ito, Y. Shimada, Y. Hashimoto, J. Kaganoi, T. Kan, G. Watanabe et al., "Involvement of TSLC1 in progression of esophageal squamous cell carcinoma," *Cancer Research* 63, no. 19 (2003): 6320 – 6326; Y. Murakami, "Involvement of a cell adhesion molecule, TSLC1/IGSF4, in human oncogenesis," *Cancer Science* 96 (2005): 543–552.

<sup>26</sup> R.M. Overmeer et al., "Combined CAD M1 and MAL promoter methylation analysis to detect (pre-)malignant cervical lesions in high-risk HPV-positive women," *International Journal of Cancer* 129, no. 9 (2011): 2218–25.

<sup>27</sup> R. Overmeer, F. Henken, P. Snijders, D. Claassen-Kramer, J. Berkhof, T. Helmerhorst, D. Heideman, S. Wilting, Y. Murakami, A. Ito, C. Meijer, and R. Steenbergen, "Association between dense CAD M1 promoter methylation and reduced protein expression in high-grade CIN and cervical SCC," *The Journal of Pathology* 215, no. 4 (2008): 388-397; L.M.A. De Strooper et al., "CAD M1, MAL and miR124-2 methylation analysis in cervical scrapes to detect cervical and endometrial cancer," *Journal of Clinical Pathology* 67, no. 12 (2014):1067–1071; L.M.A. De Strooper et al., "Combined CAD M1/MAL methylation and cytology testing for colposcopy triage of high-risk HPV-positive women," *Cancer Epidemiology Biomarkers and Prevention* 23, no. 9 (2014) 23(9): 1933–1937; V.M.J. Verhoef et al., "Follow-up of high-risk HPV positive women by combined cytology and bi-marker CAD M1/MAL methylation analysis on cervical scrapes," *Gynecologic Oncology* 137, no. 1 (2015): 55–59; Hesselink, A.T. et al., "Combined promoter methylation analysis of CAD M1 and MAL," 2459–2465; M. Bierkens et al., "CAD M1 and MAL promoter methylation levels in hrHPV-positive cervical scrapes increase proportional to degree and duration of underlying cervical disease," *International Journal of Cancer* 133, no. 6 (2013): 1293–1299; T.E. Buffart et al., "MAL promoter hypermethylation as a novel prognostic marker in gastric cancer," *British Journal of Cancer* 99, no. 11 (2008): 1802 – 1807; R.M. Overmeer et al., "Combined CAD M1 and MAL promoter methylation analysis to detect (pre-) malignant cervical lesions in high-risk HPV-positive women," *International Journal of Cancer* 129, no. 9 (2011): 2218 – 2225.

### 1.6.3. MAL M1

The myelin lymphocyte proteolipid (MAL) gene encodes a highly hydrophobic integral membrane protein belonging to the MAL family of proteolipids.<sup>28</sup> It has been localized to the endoplasmic reticulum (ER) of T-cells and compact myelin cells of the nervous system.<sup>29</sup> The protein is likely involved in the formation, stabilization and maintenance of the glycosphingolipid-enriched membrane microdomains.<sup>30</sup> When down regulated, this gene has been associated with a variety of human epithelial malignancies (such as cervical or gastric cancer).<sup>31</sup>

### 1.6.4. hsa-miR124-2

hsa-miR124-2 is a micro RNA known to have a role in epigenetic regulation of gene expression. The mature hsa-miR-124 is located on chromosomes; 8p23.1(miR-124-1), 8q12.3(miR-124-2), 20q13.33(miR-124-3). miRNAs are known to influence viral replication pathways. In viral infections, to help achieve an environment suitable for the virus, miRNAs are known to be modified/downregulated depending on the infection type and miRNA involved.<sup>32</sup>

#### 1.6.4.1. hsa-miR124-2 and Cervical Cancer

hsa-miR124-2 and cervical cancer is currently the least understood function wise, mainly due to its recent correlation linkage shown by Wilting et al. in 2010. hsa-miR124-2 loci are significantly associated with insertion sites of HPV and HPV-encoded genes were shown to influence the miRNA expression of its host cell, generally through down regulation.<sup>33</sup> hsa-miR124-2 represses the migration and invasion

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<sup>28</sup> NCBI, MAL mal, T-cell differentiation protein [Homo sapiens (human), Gene (2017), accessed 25 July 2017. <https://www.ncbi.nlm.nih.gov/gene/4118>.

<sup>29</sup> GeneCards, MAL Gene - GeneCards | MAL Protein | MAL Antibody, accessed 25 July 2017. <http://www.genecards.org/cgi-bin/carddisp.pl?gene=MA>.

<sup>30</sup> R.L. Skalsky and B.R. Cullen, "Viruses, microRNAs, and Host Interactions," *Annual Review of Microbiology* 64 (2010): 123–141; H. Jiménez-Wences, O. Peralta-Zaragoza and G. Fernández-Tilapa, "Human papilloma virus, DNA methylation and microRNA expression in cervical cancer (Review)," *Oncology Reports* 31, no. 6 (2014): 2467 – 2476.

<sup>31</sup> Skalsky and Cullen, "Viruses, microRNAs, and Host Interactions," 123–141.

<sup>32</sup> Ibid.

<sup>33</sup> Jiménez-Wences, Peralta-Zaragoza and Fernández-Tilapa, "Human papilloma virus, DNA methylation and microRNA expression in cervical cancer (Review)," 2467 – 2476.

ability as well as suppressing vasculogenic mimicry (VM) in cervical cancer cells. VM is a crucial step in cancer metastasis.<sup>34</sup>

#### 1.6.5. Methylation biomarkers for cervical screening

Many studies have demonstrated the utility either singly or in combination of the expression patterns of methylation biomarker [CAD M1 M18, MAL M1, hsa-miR124-2] for use in cervical screening. Detection of a combination of all three biomarkers in cervical scrapes from women consistently detects CIN3.<sup>35</sup> Furthermore, in a HR HPV DNA positive group of HIV positive women the specificity, sensitivity of the combined tri-marker test for CIN2+ was comparable with cytology [ASC-US or worse] (89% and 95%, respectively).<sup>36</sup>

The use of methylation biomarkers for triage of HPV positive women from primary screening has been explored in self-samples taken from a cohort of 355 hrHPV-positive self-collected specimens from women in routine screening in the Netherlands. At clinical specificities of 50 and 70%, the MAL- m1/ miR-124-2 methylation markers showed sensitivity for detection of CIN3 which ranged from 77.0 to 87.8% and from 64.9 to 71.6%, respectively.<sup>37</sup> Other studies have shown that combined CAD M1 M18/MAL panels have a CIN3+ sensitivity of 86.8% [95% confidence interval (CI), 76.1–97.6] compared with 65.8% (95% CI, 50.7–80.9) for sole cytology triage testing. Corresponding CIN3+ specificity was 64.8% (95% CI, 58.1–71.5) for combined triage and 78.6% (95% CI, 72.8–84.3) for sole cytology triage testing. For CIN2+, the sensitivity of combined triage testing was 84.5% (95% CI, 75.2–93.8) compared with 65.5% (95% CI, 53.3–77.7) for

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<sup>34</sup> S.M. Wilting, R.A. van Boerdonk, F.E. Henken, C.J. Meijer, B. Diosdado, G.A. Meijer, R.D. Steenbergen, "Methylation-mediated silencing and tumour suppressive function of hsa-miR-124 in cervical cancer," *Molecular Cancer* 9 (2010): 167.

<sup>35</sup> De Strooper et al., "Combined CAD M1/MAL methylation and cytology testing for colposcopy triage of high-risk HPV-positive women," 1933–1937.

<sup>36</sup> H. De Vuyst, S. Franceschi, M. Plummer, N. Mugo, S. Sakr, C. Meijer et al., "Methylation Levels of CADM1, MAL, and MIR124-2 in Cervical Scrapes for Triage of HIV-Infected, High-Risk HPV-Positive Women in Kenya," *JAIDS Journal of Acquired Immune Deficiency Syndromes* 70, no. 3 (2015): 311–318.

<sup>37</sup> A. Hesselink, D. Heideman, R. Steenbergen, M. Gök, F. van Kemenade, S. Wilting et al., "Methylation marker analysis of self-sampled cervico-vaginal lavage specimens to triage high-risk HPV-positive women for colposcopy," *International Journal of Cancer* 135, no. 4 (2014): 880–886.

sole cytology triage, with corresponding specificities of 69.9% (95% CI, 63.1–76.6) and 83.5% (95% CI, 78.0–89.0), respectively.<sup>38</sup> This highlights the potential of these markers for use in triage of HPV positive women.

This study aims to examine the utility of the methylation biomarker panel [CAD M1 M18, MAL and hsa-miR124-2] in Thinprep liquid-based cytology specimens. To this end a validation panel of 200 samples with confirmed histology is being created to provide clinically relevant cut-off points to assess the remainder of the study population.

### 1.7. CERVIVA Primary Screening Pilot study

CERVIVA in partnership with CervicalCheck are currently undertaking a HPV primary screening study evaluating and comparing different strategies for the triage of women with a HPV positive primary screening test (Figure 6). The aim is to recruit 13,000 women attending for their routine CervicalCheck smears. This study will not affect patient care. This is the first study of its kind internationally that examines all markers in combination, embedded within a national screening programme. On completion of testing all samples will be banked for future research where consent has been given.

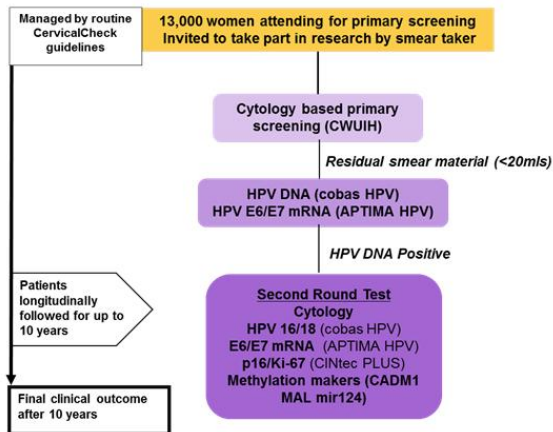


Figure 6  
HPV Primary Screening Study Design

<sup>38</sup> Hesselink, A.T. et al., "Combined promoter methylation analysis of CAD M1 and MAL," 2459–2465.

## Methods

### 2.1. Sample Cohort

Women attending routine CervicalCheck smear tests, from 33 primary care centres, are recruited. Participants consent to the use of residual smear material for this trial and access to their CervicalCheck data for up to 10 years, post-enrolment. Ethical approval was granted by the Research Ethics Council at the Irish College of General Practitioners. Women are excluded with a history of CIN2+, an abnormal smear within the past 3 years or undergone hysterectomy. Once routine screening is performed the sample is given a unique ID and anonymised for research use. Coded clinical follow up data for each participant is periodically retrieved from CervicalCheck.

### 2.2. HPV Testing

#### 1.1.1. Cobas® 4800 HPV Test, Roche Molecular Diagnostics

The Cobas® 4800 HPV Test is a qualitative *in vitro* test for the detection of HPV DNA. Target DNA from the L1 region is amplified via PCR to detect HPV 16, 18 and 12 hrHPV's (31/33/35/39/45/51/52/56/58/59/66/68) in a single analysis while  $\beta$ -globin acts as the internal cellular control. The Kit specifications indicates results are positive at clinically relevant infection levels. The Cobas® HPV assay is run as per manufacturer's guidelines. All samples that test positive for HPV DNA are followed up with methylation analysis.

### 2.3 Methylation Analysis

For methylation to be assessed the residual smear material (ThinPrep sample) must undergo DNA extraction and bisulphite conversion prior to methylation-specific PCR. Between stages the material can be stored at -20°C.

DNA extraction is performed using the Qiagen DNeasy blood and tissue kit in accordance with manufacturer's protocol. 2ml of the sample is aliquoted and centrifuged at 20,000 x g for 5 mins to pellet the cervical cells. The pellet is washed, re-suspended and re-spun twice with 1X PBS (10X, 7.4PH, Ambion™) to remove all PreservCyt. DNA extraction uses the Protease K extraction method following the Qiagen DNeasy protocol for cells. DNA is eluted in 50µl of elution buffer to

maximise DNA concentration. DNA concentrations were determined via Nanodrop.

The bisulphite conversion of DNA is performed using the EZ DNA Methylation Gold Kit in accordance with manufacturer protocol. Bisulphite conversion converts Cytosine to Uracil in unmethylated DNA. Methylated DNA is protected from this process. The following parameters were set for this conversion process:

500ng of DNA input concentration is used for each conversion. Converted DNA is eluted in 10 $\mu$ l of Elution Buffer. Positive, negative and non-converted control are processed with each conversion batch.

### 2.3.1. Methylation Specific PCR (qMSP) and Analysis

Real time singleplex qMSP is performed to detect the methylation of specific target regions. Primer and Probe sequences for CAD M1, MAL M1 and hsa-miR124-2 have been previously verified by Overmeer et al. and Wilting et al. and known to bind only to methylated DNA post bisulphite conversion. A methylation specific primer and probe for  $\beta$ -Actin (ACTB) is employed as an endogenous control.<sup>39</sup>

In converted unmethylated DNA and thus Uracil containing DNA, the primer will be unable to bind during the qMSP leading to no PCR products being produced. Methylated DNA still contains its methylated cytosine residues and thus a PCR product will be detected in these samples as seen in Figure 7.<sup>40</sup>

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<sup>39</sup> GeneCards, MAL Gene - GeneCards | MAL Protein | MAL Antibody, <http://www.genecards.org/cgi-bin/carddisp.pl?gene=MA> (Accessed 25 July 2017); Overmeer et al., "Combined CAD M1 and MAL promoter methylation analysis to detect (pre-) malignant cervical lesions in high-risk HPV-positive women," 2218 – 2225; Hesselink, Heideman, Steenbergen, Gök, van Kemenade, Wilting et al., "Methylation marker analysis of self-sampled cervico-vaginal lavage specimens to triage high-risk HPV-positive women for colposcopy," 880-886.

<sup>40</sup> Y. Zhang, V. Bailey, C. Puleo, H. Easwaran, E. Griffiths, J. Herman, S. Baylin and T. Wang, "DNA methylation analysis on a droplet-in-oil PCR array," *Lab on a Chip* 9, no. 8 (2009): 1059.

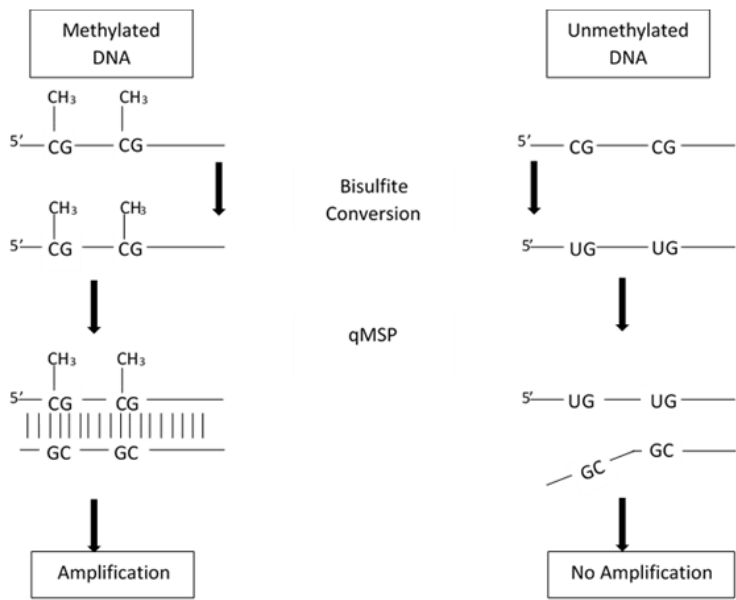


Figure 7. Principle of qMSP

When unmethylated DNA undergoes bisulphite conversion the Cytosine is converted to Uracil. In methylated DNA, this does not occur and Cytosine remains in place. Specific primers designed for methylated DNA (M) containing complementary Guanine will amplify methylated DNA only. Primers designed for unmethylated DNA containing complementary Adenine will amplify only unmethylated DNA.

All primers and probes are labelled with 5' FAM and 3' TAMRA. Each qMSP is run in duplicate and include controls for each target

Controls;

- SiHa DNA Converted Control (Positive cell line) (Positive Control).
- Clinically Negative Sample Converted DNA (Clinical Negative Control).
- SiHa DNA Unconverted (Bisulphite Conversion Control).

All qMSP's are carried out in 12ul reaction volumes as per Table I  
Post qMSP the following criteria must be met prior to analysis.<sup>41</sup>

- Controls valid.

<sup>41</sup> Zhang, Bailey, Puleo, Easwaran, Griffiths, Herman, Baylin and Wang, "DNA methylation analysis on a droplet-in-oil PCR array," 1059.

- ACTB Ct<30.
- Target Ct<40.

qMSP reaction Components	Volume(μl)
Forward Primer (417nM)	0.5
Reverse Primer (417nM)	0.5
Probe (208nM)	0.25
QuantiTect Probe PCR Kit Master Mix (1X)	6
Sample DNA (50ng)	1
DNase Free water	3.75
<b>Reaction Total volume</b>	<b>12</b>
Table I Master Mix Components for 1 qMSP well.	

Baseline and threshold limits are set and recorded for each run as per Applied Biosystems instructions. Post conversion semi quantitative analysis was conducted using the formula  $2^{[ct(B\text{-actin})-ct(Target)]} \times 100$  to calculate a ratio for each sample.<sup>42</sup> This formula is a derivation of the  $\Delta\Delta Ct$  which is commonly used to derive a meaningful value from PCR analysis (the difference of log normalized expressions between two groups). This formula is optimised to work with qMSP analysis.

#### 2.4. Limit of Detection Estimation (LOD)

To determine the LOD of bisulphite converted DNA non-standard methods needed to be used to estimate this parameter. Two methods were utilised to determine this:

Method one is a serial dilution of known positive SiHa cell were diluted from  $1 \times 10^6$  to  $1 \times 10^1$  cells. These cells are spiked into a 20ml mix of known negative cervical cells to simulate a positive sample. 2mls are removed from this sample and processed for DNA extraction, conversion and qPCR. This method was used to simulate a clinical sample.

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<sup>42</sup> Hesselink, A.T. et al., "Combined promoter methylation analysis of CAD M1 and MAL," 2459–2465.

Method two is a serial dilution of SiHa DNA post conversion. This is done to as accurately as possible determine the LOD of positive DNA needed to be detected in the qMSP. SiHa DNA is converted following kit protocols and serially diluted in Elution Buffer ranging from 50ng/μl to 0.5 pg/ μl.

## Results

### 3.1. Validation Methylation Panel

Due to the well published nature of the qMSP with a known Master Mix (QuantiTect Probe PCR Kit Master Mix) and optimised Primer and Probe concentrations, few pre-optimisation steps were required to produce a functioning qMSP for methylation analysis.<sup>43</sup> This included optimisation of DNA elution volume (50μl), ideal DNA input concentration for bisulphite conversion (500ng) and an estimated LOD. As shown in Figure 8,  $1 \times 10^6$  to  $1 \times 10^1$  cells (SiHa) that were spiked into a 20ml mix of known negative cervical cells to simulate a positive sample. From the data we could show that CAD M1 M18 and hsa-mir-124-2 could detect down to  $1 \times 10^1$  cells while MAL M1 could detect down to  $1 \times 10^2$  cells. From this we can see that we have an approximate detection range or approximately 10-100 positive cells (60-600pg DNA).

From the serial dilution experiment of SiHa DNA post conversion as shown in Figure 9, all three markers could detect down to 500pg/μl of converted DNA in the qMSP.

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<sup>43</sup> GeneCards, MAL Gene - GeneCards | MAL Protein | MAL Antibody, accessed 25 July 2017, <http://www.genecards.org/cgi-bin/carddisp.pl?gene=MA>.

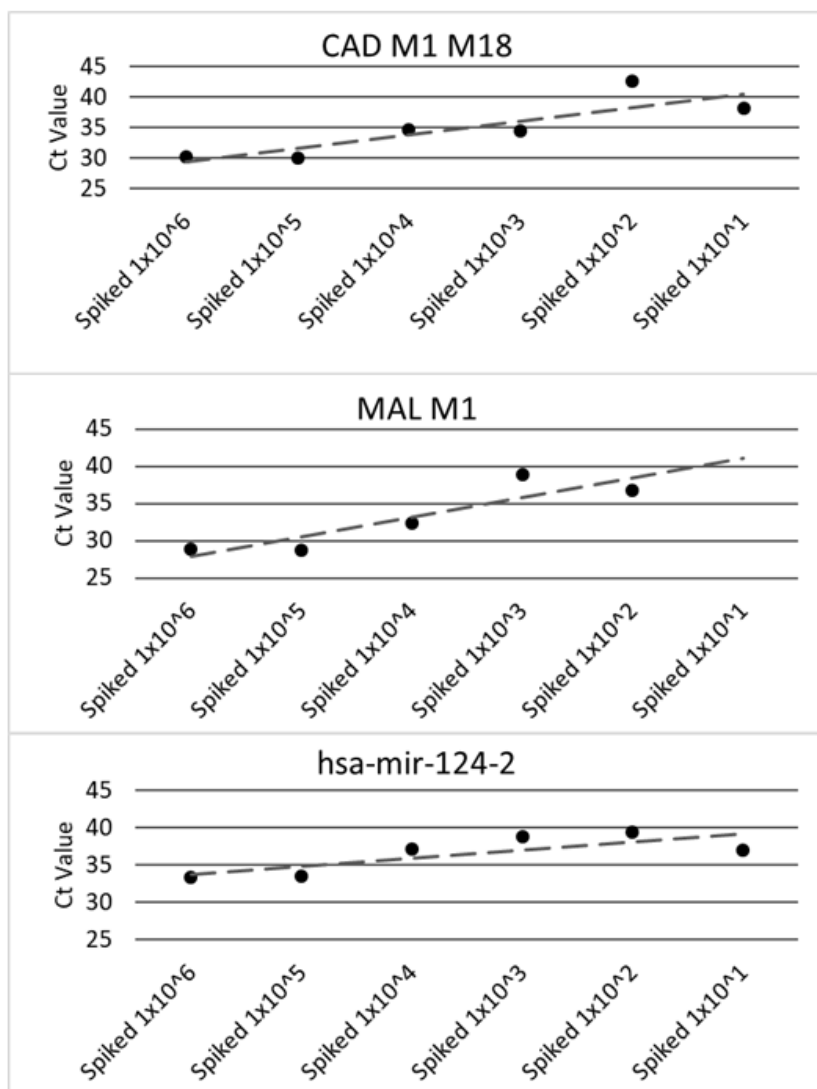


Figure 8. Spiked Thinprep LOD estimation. Detectable PCR product is shown for each spiked sample (Ct Value) where appropriate and a line of best fit is shown.

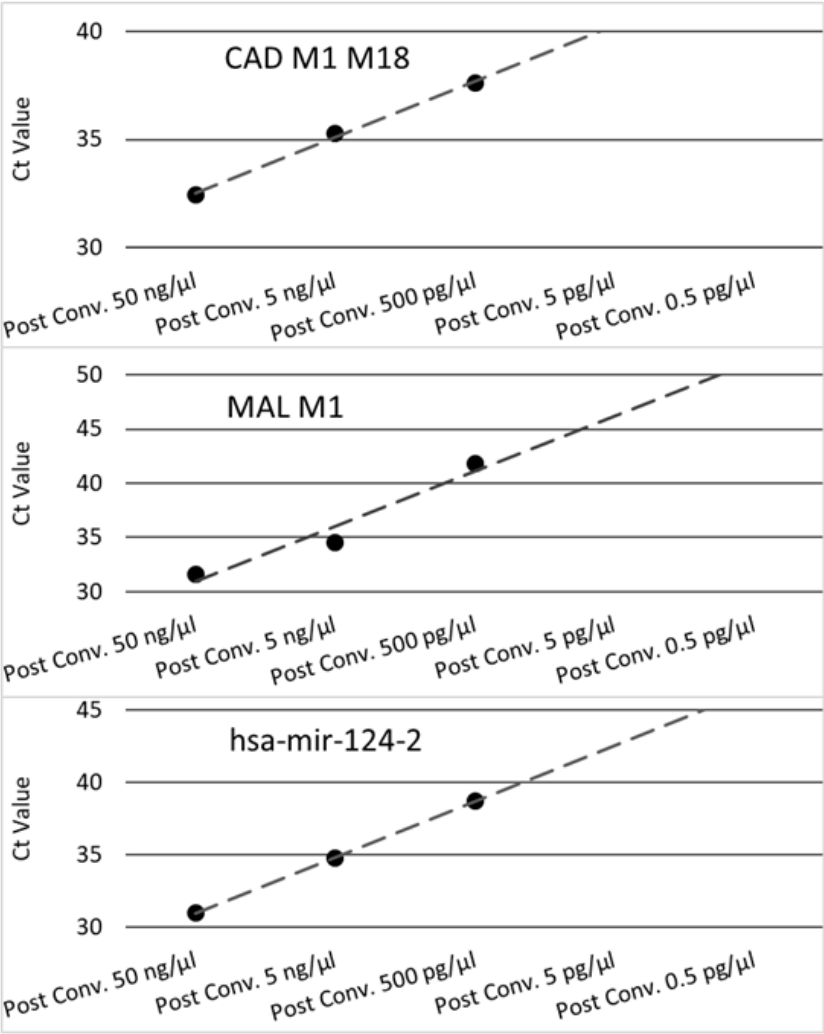


Figure 9. LOD of Serially Diluted SiHa Bisulphite Converted DNA. Detectable PCR product is shown for each spiked sample (Ct Value) where appropriate and a line of best fit is shown.

To determine clinically relevant cut-off points for each qMSP assay, a validation panel comprising of 200 study samples shall be used to set thresholds for positivity. Samples chosen for this validation will be HPV positive with varying grades histologically defined cervical pre-cancer and negatives that are DNA, mRNA and cytology negative. This model will be used to classify the remaining HPV positive women from the study.

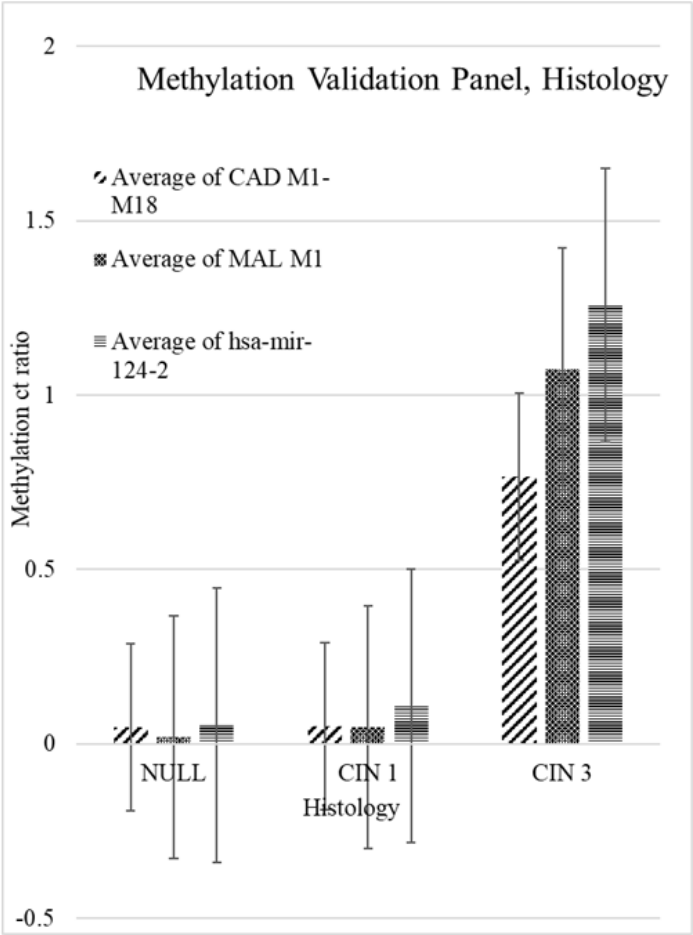


Figure 10. Average Methylation Values across the differing Histology Grades

To date, validation of the qMSP has been conducted on 183 samples, including 133 HPV positive samples (CIN1 (n=50), CIN2 (n=33), CIN3 (n=50)) and 50 HPV negative, cytology normal samples.

Figure 10 shows the current validation panel average values (derived from the  $(2^{[ct(B\text{-}actin)-ct(Target)]} \times 100)$  equation) in relation to confirmed histology. Shown are Negative, CIN 1 and CIN 3 (n=50 each) average methylation values. CIN 2 has been omitted due to incomplete data.

There is a statistical difference in the methylation values of MAL M1 and hsa-mir-124-2 methylation specific biomarkers between CIN1 and NULL samples ( $p=0.036, 0.019$ ) and all three methylation markers (CAD M1 M18, MAL M1, hsa-mir-124-2) show a significant difference in methylation values between the CIN3 and negative samples ( $p=0.015, 0.016, <0.001$ ). When CIN1 and CIN3 are compared there is also a statistically significant difference ( $p=0.018, 0.018, 0.001$ )

## Discussion

So far, cytology is the method used for primary screening of cervical cancer even with the drawbacks previously mentioned. However, on the back of the HTA from HIQA Ireland will be moving to a HPV based screening programme with cytology being used as the interim triage test to manage at risk cases. One main issue surrounding this methodology is mentioned in the HTA and by other researchers is how to treat women who are HPV positive but cytology negative. This is especially important for the younger women who will have this pattern of results. Moreover, it is necessary that they are managed appropriately but also vital that cancers are not missed and that false negatives are kept to a minimum. Cervical screening is at a crossroads where new triage methods need to be introduced in conjunction with HPV testing to ensure a safe and reliable screening programme.

In this project one of the main aims is to assess a panel of methylation markers for their use in triaging HPV positive cases from primary screening and at this point in the study our finding suggests that the methylation panel for the detection of high grade lesions in HPV positive cases shows merit.

From the LOD experiments, we were confident that the qMSP would function well in clinical samples. The ability of the test to detect up to 10 cells in a highly negative background and for the qMSP to detect down to 500pg/μl of converted DNA indicates its potential for detecting the few pre-cancerous or cancerous cells in a large background of negative cells. Due to the experimental limitations, there is a wide margin between 500-5pg/μl (see Figure 9) so it is likely that the qMSP can detect much lower than this. The average cellular DNA is ~6pg and the fact that in spiked experiments (see Figure 8) we could detect product as low as  $1 \times 10^1$  cells would indicate the test can detect at least 50pg of DNA; however, this is just a running hypothesis.

The qMSP has also been shown to work well on our study samples. From our data we can see a very strong difference between known negative samples and high-grade smears (CIN3+). Nevertheless, the panel does show poor differentiation of negatives and CIN1 cases with only a small few showing truly elevated methylation levels. This aligns with previous papers as they have indicated that Methylation Panels are poor at differentiating CIN1s.<sup>44</sup> This can be for many reasons but is likely that as CIN1 is an early stage pre-cancer and it's likely that there has been no time for the cell to accrue these methylated genes. Average CIN1 methylation levels are closer to that of a negative cell than of CIN3 (see Figure 10). Of note the current practice indicates no treatment for CIN1 due to the high regression rate of these lesions however the few CIN1s that show altered methylation may be at a higher risk of progression than those with lower methylation levels, this possibility will be addressed in the follow up of these women over the next 10 years. If true, the ability of a triage test to identify these low grade, but high-risk women would be invaluable and appropriate follow up can be implemented to reduce the risk of a high grade pre-cancerous or cancerous lesion being diagnosed on follow up.

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<sup>44</sup> Kuramochi, Fukuhara, Nobukuni, Kanbe, Maruyama, Ghosh, Pletcher, Isomura, Onizuka, Kitamura, et al., "TSLC1 is a tumour-suppressor gene in human non-small-cell lung cancer," 427 – 30; De Strooper et al., "Combined CAD M1/MAL methylation and cytology testing for colposcopy triage of high-risk HPV-positive women," 1933–1937; GeneCards, MAL Gene - GeneCards | MAL Protein | MAL Antibody, accessed 25 July 2017. <http://www.genecards.org/cgi-bin/carddisp.pl?gene=MA>.

Regardless, the qMSP works efficiently from ThinPrep samples and from the current panel gives us good differentiation between negative and high-grade samples, inclusion of the CIN2 samples in the following month will finalise the panel and hopefully allow CIN2 differentiation from the negative controls.

Cost is always a vital factor when approaching new potential screening programs. Therefore, CERVIVA have a team of health economists who are conducting cost effectiveness analysis for HPV based primary screening as part of its research ecosystem. This screening is based on a range of different parameters including screening intervals, screening age, cytology triage, HPV 16/18 triage and biomarker triage approaches, for each of the different scenarios being assessed in the CERVIVA HPV primary screening trial.

## **Conclusion**

The research into this methylation triage panel has shown good promise to be both a sensitive and specific marker of CIN3 and cervical cancer. Although more work is required, such as testing more CIN2 classified samples and more in-depth statistical analysis, these initial results are highly encouraging. Moreover, the nature of this longitudinal study will allow us to follow up these women and accurately calculate risk scores in relation to their methylation status. As mentioned previously, all material is also biobanked with the woman's consent so future work on new markers, as and when they are discovered, can be trailed on this population allowing a great scope of work to be done in an Irish context.

## **Acknowledgments**

As this is my first paper to publish since starting my PhD in 2016, I would like to sincerely thank both Dr. Cara Martin and Prof. John O'Leary both of whom have given me the chance to get my PhD which has been an aspiration for many years and trusting me with such a large project. Many thanks as well to Dr. Christine White who has been an excellent Post-doc and an immense help and source of knowledge for me. Lastly thanks to all in CERVIVA, Coombe Women & Infants University Hospital Cytology Lab and participants of the study.

High-resolution versions of all figures can be found in the digital edition of this journal, available at: [www.trinitypostgraduaterreview.ie](http://www.trinitypostgraduaterreview.ie)

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## **Restructuring of the Irish Institutes of Technology Sector – New Knowledge or Mission Drift?**

Tanya Zubrzycki<sup>1</sup>

### **Abstract**

Higher education in Ireland has undergone a rapid expansion in past decades, with an associated increase in research funding and enterprise engagement, but this has been more recently undermined by austerity measures resulting from the economic recession in the end of the last decade. Discussion around the restructuring of the Irish Institutes of Technology (IoT) sector began following the OECD review of Irish higher education (2004), which recommended enhancing research infrastructure and noted the cost implications of maintaining many smaller-sized higher education institutions. The National Strategy for Irish Higher Education to 2030 (2011), also referred to as the Hunt Report, was set out in the context of austerity and proposed merging the Irish Institutes of Technology (IoTs) into a smaller number of stronger institutions, followed by the potential establishment of Technological Universities (TUs).

As Ireland enters a period of economic recovery, rationalisation measures are becoming secondary to the efforts aimed at enhancing the IoT sector and enabling it to better respond to the needs of the modern society. Potential Technological Universities would take on additional functions, including building research capacity – an aim reflected in the Technological Universities Bill 2015. This paper provides a review of some of the reasons behind the restructuring internationally, and how IoTs' main characteristics compare with institutions of similar standing in other European countries. The role of higher education today is reviewed, along with the progression of research development in Ireland.

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Some implications of Technological Universities are discussed, including their potential contribution to fostering research and development in Ireland, particularly in the field of applied research – but also the potential drift of vocational mission in the TUs, challenges associated with TU’s additional functions, and how academic work may be changing in the newly formed institutions. It is argued that further consideration of these and other implications in developing the TUs is needed through engagement with stakeholders, to enhance the outcomes for the students, regional communities, and society as a whole.

**Keywords:** Institutes of Technology; restructuring; higher education; research and development; knowledge-based society

### **Abbreviations**

BERD – Business Enterprise Expenditure on R&D

HE – Higher Education

HEA – Higher Education Authority

HERD – Higher Education Expenditure on R&D

IoTs – Institutes of Technology

PRTLTI – Programme for Research in Third Level Institutions

SFI – Science Foundation Ireland

IRC – Irish Research Council

OECD – Organisation for Economic Co-operation and Development

R&D – Research and Development

Thea – Technological Higher Education Association

TU – Technological University

UAS – University of Applied Sciences

## Introduction

The last few decades have seen a significant expansion of higher education globally, with student numbers more than doubling between 1999 and 2014, “from around 95 to 207 million in the world.”<sup>2</sup> According to OECD’s recent *Benchmarking higher education system performance* report, this expansion is a result of an increasingly important societal role of higher education (HE).<sup>3</sup> In particular, higher education is viewed as a significant contributor to the development of research and human capital, both of which serve as a base for innovation that drives productivity and economic growth.<sup>4</sup>

Consistent with global trends, higher education in Ireland has undergone rapid growth in past decades, with a substantial expansion in national funding for research in science and technology, and more emphasis on collaboration between the academy and enterprise.<sup>5</sup> However, as noted in a recent HEA report, this growth has been “underfunded” following the economic collapse in the end of the last decade, with the national message to “do more with less.”<sup>6</sup>

Ireland has a binary higher education system consisting of seven universities, fourteen Institutes of Technology (IoTs), and several colleges and private institutions. With over 93,000 students in 2016/17 academic year, the Institutes of Technology represented the second-largest sector in student enrolments after the universities with 125,000 enrolled students.<sup>7</sup> The IoTs are geographically spread throughout the island, which has facilitated their important regional mission.

The present paper begins with a discussion of the efforts to restructure the Irish Institutes of Technology sector. It provides a

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<sup>2</sup> UNESCO, “Education: Gross enrolment ratio by level of education” (database) (2016), quoted in OECD, *“Benchmarking higher education system performance: Conceptual framework and data. Enhancing Higher Education System Performance”* (Paris: OECD, 2017), 9.

<sup>3</sup> OECD, “Benchmarking HE system performance,” 9.

<sup>4</sup> Ibid.

<sup>5</sup> Ellen Hazelkorn and Amanda Moynihan, “Transforming Academic Practice: Human Resources Challenges,” in *The Research Mission of Higher Education Institutes outside the University Sector*, ed. Svein Kyvik and Benedetto Lepori (Dordrecht: Springer, 2010b), 175.

<sup>6</sup> HEA, “Higher Education System Performance 2014-2017. Third Report of the Higher Education Authority to the Minister for Education and Skills” (Ireland: HEA, 2016), 6.

<sup>7</sup> HEA, “Higher Education System Performance: Institutional and Sectoral Profiles 2013/14” (Ireland: HEA, 2016).

background of the events and policy initiatives leading to the proposals for IoTs mergers and potential designation of the resulting consortia as Technological Universities (TUs). The author further analyses the conception and progression of the 2015 Technological Universities Bill (TU Bill) against the backdrop of the international and Irish context for research in higher education sector. Some of the reasons behind the restructuring in other countries are discussed, as well as the progression of research development in Ireland. The paper concludes with some considerations around the potential implications for Technological Universities.

### **Towards the IoT sector restructuring**

Some groundwork for the discussions about the IoT sector restructuring may have been laid in OECD's review of Irish higher education in 2004, requested by the Irish government. Underpinned by Ireland's strategic objectives, including one of "creating a world class research, development and innovation capacity,"<sup>8</sup> the main theme of the OECD report was "the crucial contribution of Irish higher education to a "knowledge-based economy."<sup>9</sup> OECD's recommendations included enhancing the existing research infrastructure and increasing the number of postgraduate students. Relating to that, the reviewers questioned the country's large number of small-size higher education institutions, as this could have implications for the costs of advancing the research infrastructure. At the same time, the report endorsed the differentiation of mission between Universities and IoTs, and "urged the government to resist pressures from IoTs for university status," thus preserving the regional and vocational mission of the Institutes of Technology.<sup>10</sup>

The OECD recommendations adopted by the government "reflected a shared consensus between the OECD and domestic elites on the vital role of higher education in developing a knowledge-based

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<sup>8</sup> OECD, "Higher Education in Ireland. Reviews of National Policies for Education," (OECD publishing, 2006).

<sup>9</sup> John Walsh, "A Contemporary History of Irish Higher Education, 1980-2011," in *Higher Education in Ireland: Practices, Policies and Possibilities*, ed. Aidan Seery, John Walsh and Andrew Loxley (Dublin: Palgrave Macmillan, 2014), 50.

<sup>10</sup> Ibid.

economy.”<sup>11</sup> *The National Development Plan for 2007-2013* allocated budget for an extensive HE sector review. In 2011 came *The National Strategy for Higher Education to 2030* (‘The Hunt Report’), outlining for the first time the proposal for mergers of IoTs into a smaller number of stronger institutions, potentially followed by designation as Technological Universities. In part, this could be due to policy convergence aimed at positioning Irish higher education and research in line with European and international systems. At the same time, the Hunt Report was written in the context of economic crisis and austerity measures. Thus, the proposals for amalgamations could also be in part the result of internal pressures to make the HE system more efficient, suggesting, for example, potential rationalisation of programmes provision between institutions.<sup>12</sup>

In 2015, the Technological Universities Bill (TU Bill) was introduced, defining the criteria for a merger of two or more institutes and their resulting designation as a Technological University.<sup>13</sup> The eligibility criteria for TU designation includes, among other requirements, having a certain percentage of academic staff with a doctoral degree (or, to a certain limit, an equivalent qualification) in specified higher level programmes, a percentage of research students out of the wider student body, and a demonstrable capacity to increase these proportions within ten years of becoming a TU. The applying institutions would also need to have established research and doctoral level programmes in at least 3 fields of education, with the capacity to raise this to at least 5 fields within 5 years of becoming a TU.<sup>14</sup>

The 2015 TU Bill also defines functions of a Technological University. For example, TUs would be expected to gradually expand regionally relevant research and innovation and continue to develop programmes that address the needs of business, enterprise, the professions, the community and other relevant stakeholders in the

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<sup>11</sup> Ibid.

<sup>12</sup> Government of Ireland. “The National Strategy for Higher Education to 2030. Strategy Group Report,” (Ireland: Department of Education and Skills, 2011).

<sup>13</sup> Government of Ireland. “Technological Universities Bill 2015”, as initiated (No. 121, Ireland, 2015).

<sup>14</sup> “Technological Universities Bill 2015”, as initiated.

region. Furthermore, the TUs would continue to strengthen international research collaborations and mobility.<sup>15</sup>

IoTs offer Honours Bachelor degree programmes and are engaged to varying levels in the provision of Masters and Doctoral education (levels 8-10 of the Irish National Framework of Qualifications). However, they also have a strong presence at levels 6 and 7, providing, for instance, the majority of Ordinary Bachelor degree courses in Ireland.<sup>16</sup> This differentiates them from existing universities which focus mainly on levels 8-10, and facilitates the IoTs' traditional mission of "vocational-focused education with a strong emphasis on the region and small and medium-sized enterprises."<sup>17</sup> The Hunt Report argued against any loss of this mission, stating that this would be detrimental to the breadth of higher education provision and the Irish society, as the IoTs also enrol a very diverse student base.<sup>18</sup> The TU Bill addresses this by promoting excellence in teaching and learning at "all levels of higher education within the Framework" as part of the Technological University functions.<sup>19</sup> The vocational mission is further supported in the 2015 Bill with a TU function to serve the community and public interest by "fostering close and effective relationships" with a provider of further education in the region where its campuses are located, among other relevant relationships.<sup>20</sup>

Furthermore, it would be important to consider the potential implications of TU designation for the academic staff in existing IoTs. Hazelkorn and Moynihan point out that "the majority of existing academic staff within the IoT sector have been employed to teach," and emphasise how the rising demand for postgraduate qualifications and research challenge the traditional concept of academic work in the IoTs.<sup>21</sup> The requirement to increase the proportion of staff holding

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<sup>15</sup> "Technological Universities Bill 2015", as initiated.

<sup>16</sup> Simon Marginson, "Criteria for Technological University Designation" (Dublin: HEA, 2011), 5.

<sup>17</sup> Ellen Hazelkorn, "Restructuring the Higher Education Landscape". *University World News* 240 (23 Sept 2012): 2.

<sup>18</sup> "The National Strategy for Higher Education to 2030," 102.

<sup>19</sup> "Technological Universities Bill 2015", as initiated, 19.

<sup>20</sup> *Ibid.*, 20.

<sup>21</sup> Hazelkorn and Moynihan, "Transforming Academic Practice": 194.

doctoral qualifications and intensify research in the TUs would mean obtaining higher qualifications for some of the existing staff, or incorporating these criteria in the recruitment strategy. There would also be a need for some of the academic staff to advance their fields of research, further develop PhD supervision, and apply for more research funding.

At the same time, the academics in the Irish HE sector surveyed as part of the “Country Report for Ireland” (2015) found their working environment characterised by deteriorating working conditions, decreased funding for the sector, and reported a lack of influence and involvement in decision-making process within their institutions, among other issues.<sup>22</sup> In the IoT sector, while student enrolments increased by 19% (representing 16,294 more students) between 2008 and 2014, the number of IoTs academic staff teaching them experienced a 7% reduction between 2007 and 2014.<sup>23</sup> In terms of funding, the IoT sector in Ireland experienced the largest cuts in funding of 32%, when compared to 26% for universities and 24% for colleges.<sup>24</sup> A further 12% increase in student numbers is anticipated in the sector by 2020.<sup>25</sup>

The Teachers’ Union of Ireland, representing IoT academic staff members, raised several concerns relating to the 2015 Technological Universities Bill.<sup>26</sup> This resulted in a consultation process and proposed changes to the TU Bill, including protection of terms and conditions for academic staff and strengthening of the regional mission of a Technological University.<sup>27</sup> As of January 2018, the TU Bill incorporating amendments was going through the legislative process to be passed into law.

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<sup>22</sup> Maria Clarke, Aidan Kenny, Andrew Loxley. *Creating a Supportive Working Environment for Academics in Higher Education: Country Report Ireland* (Ireland: Federation of University Teachers, Teachers Union of Ireland and Education International Res., 2015), 11.

<sup>23</sup> DES and HEA data in Clarke et al., “Country Report Ireland,” 47-49.

<sup>24</sup> Clarke et al., “Country Report Ireland,” 11.

<sup>25</sup> HEA, “Financial Review of the Institutes of Technology,” 7.

<sup>26</sup> Tanya Zubrzycki, “Restructuring of the Irish Institutes of Technology Sector.” (*SRHE Newsletter and News Blog*, [www.srheb.com](http://www.srheb.com), 2017).

<sup>27</sup> [Merrionstreet.ie](http://Merrionstreet.ie). “Minister Bruton and Minister Mitchell O’Connor Secure Government Approval to Progress Technological Universities Bill” [Release]” (Irish Government News Service, 17 July 2017).

Currently, the following four consortia are “engaged with the process to become designated as Technological Universities”:

- 1) TU4Dublin (Dublin Institute of Technology, Institute of Technology Tallaght, Institute of Technology Blanchardstown),
- 2) Technological University for the South-East (TUSE – consisting of Waterford Institute of Technology and Institute of Technology Carlow),
- 3) Munster Technological University (MTU – consisting of Cork Institute of Technology and Institute of Technology Tralee),
- 4) Connacht-Ulster Alliance (CUA – consisting of Galway-Mayo Institute of Technology, Institute of Technology Sligo and Letterkenny Institute of Technology).<sup>28</sup>

These four separate consortia comprising 10 of the country’s 14 IoTs are shown in **Figure 1**. The 4 Institutes of Technology that are not part of the four consortia are shown in circles and include Dundalk Institute of Technology, Athlone Institute of Technology, Limerick Institute of Technology and Dún Laoghaire Institute of Art, Design + Technology.

**Figure 1.**



<sup>28</sup> Adapted from Merriestreet.ie “Release”.

**Figure 1.** Adapted from Education in Ireland. “View all Institutes of Technology.” Accessed 30/11/2017.

<http://www.educationinireland.com/en/Where-can-I-study-/View-all-Institutes-of-Technology/>.

### **International experience**

A recent book by Richard Thorn on the history of the Institutes of Technology (originally Regional Technical Colleges) highlights their important role in increasing participation rates in Irish higher education “from being the preserve of an elite to mass participation.”<sup>29</sup> Thorn notes that the opportunity to become Technological Universities provides the IoTs with a chance to “consider futures other than as institutes of technology” – a provision that led to “some focusing on university status, with others choosing to remain as institutes of technology.”<sup>30</sup>

There are multiple examples of the efforts to restructure vocational institutes in different countries over the last few decades.<sup>31</sup> For the purposes of this review, it is useful to briefly consider some of the reasons behind the restructuring internationally, and identify how IoTs’ main characteristics compare with those of similar sectors in other countries. In one report, a team of international authors (File et al.) provide a comparative analysis of sectors they refer to as ‘Universities of Applied Sciences’ (UAS) in several European countries, including Ireland.<sup>32</sup> File et al. found “strong similarities in the objectives underlying these merger processes. Essentially they are about maturing systems that need to be taken to the ‘next level’,” often reflecting “policy responses to perceived deficiencies in existing systems that

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<sup>29</sup> Breandán Mac Conamhna, foreword to Richard Thorn, *No Artificial Limits: Ireland’s Regional Technical Colleges* (Dublin: IPA, 2018), ix.

<sup>30</sup> Richard, Thorn. *No Artificial Limits: Ireland’s Regional Technical Colleges* (Dublin: IPA, 2018), xi.

<sup>31</sup> Siobhan Harkin and Ellen Hazelkorn, “Restructuring Irish Higher Education through Collaboration and Merger,” in *Mergers and alliances in higher education: International practice and emerging opportunities*, ed. Adrian Curaj et al. (Springer, 2015).

<sup>32</sup> Jon File et al. “Policy challenges for the Portuguese polytechnic sector: a report for the Portuguese Polytechnics Coordinating Council (CISSP).” (The Netherlands: CHEPS, 2013).

needed larger institutions to effectively deal with particular challenges.”<sup>33</sup> The authors of the report note that in the last two decades of the last century and early 2000s, policy-induced mergers were a popular way of restructuring higher education systems, featuring in “the Netherlands, Australia, Norway, China, Hungary, Flanders and South Africa.”<sup>34</sup>

More recently, the trend has continued: Kyvik and Stensaker discuss how in Norway, “inspired by a process in which four small colleges in Sweden managed to achieve the status of a (network) university in 2005, many Norwegian university colleges also became interested in the strategic option of merger as a means to achieve university status.”<sup>35</sup> The authors identify 14 merger initiatives in Norway in the last decade, with only 4 of them brought to completion: the authors further observe some common characteristics of the failed mergers including similar profile of merging colleges, regional pressure to merge to attain university status, and geographical distances; at the same time, for completed mergers, two institutions appeared to have a better chance than three or more, and leadership roles were important parts of the negotiations, among other factors.<sup>36</sup> In another analysis, File et al. note that UASs in Norway are allowed to ‘upgrade’ to university status if they “fulfil criteria which pertain specifically to the university sphere, such as ‘strong research intensity.’”<sup>37</sup>

In terms of the sector’s main characteristics, File et al. conclude that Irish IoTs are an exception, as they already offer PhDs, with another exception being Norway, while vocational institutes in comparator European countries typically only offer qualifications up to Bachelors and Masters level.<sup>38</sup> The authors note that the Irish IoTs have

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<sup>33</sup> Leo Goedegebuure in File et al. “Policy challenges for the Portuguese polytechnic sector,” 50.

<sup>34</sup> Ibid., 49.

<sup>35</sup> Svein Kyvik and Bjorn Stensaker. “Factors Affecting the Decision to Merge: The case of strategic mergers in Norwegian higher education,” *Tertiary Education and Management* 19, no.4, (2013): 326

<sup>36</sup> Kyvik and Stensaker, “Factors Affecting the Decision to Merge.”

<sup>37</sup> Leon Cremonini and Jon File in File et al. “Policy challenges for the Portuguese polytechnic sector,” 120.

<sup>38</sup> File et al., “Policy challenges for the Portuguese polytechnic sector,” 41,21.

been developing “in the direction of Universities” and, in terms of their research function, are viewed as both education and research organisations, similar to their counterparts in Switzerland, Germany, Austria and Norway, while higher vocational institutions in other European countries under scrutiny are seen as mass education institutions, or as partners in research networks.<sup>39</sup>

### **Progression of Research and Development in Ireland**

To better understand the Technological Universities’ potential role in the Irish higher education and society, it is also useful to consider today’s role of higher education, and trace the progression of research development in Ireland. As discussed earlier, OECD views the global expansion of higher education over the last few decades resulting from its increasingly significant role. In particular, the OECD considers higher education to be a significant contributor to the development of *research* and *human capital*, both of which serve as a base for innovation that drives productivity and economic growth.<sup>40</sup>

For example, in terms of research, the OECD emphasises the role of HE in provision of training up to doctoral levels, since countries with a higher proportion of doctoral holders have also shown higher rates of research and development (R&D) intensity and innovation. Innovation is also driven by HE collaborations with external organisations contributing to the transfer of knowledge and technology. Furthermore, international mobility of highly skilled students and academics as part of HE fosters international collaboration, which is “strongly associated with research excellence.”<sup>41</sup>

Regarding human capital, OECD points out that HE develops “the advanced skills needed for modern economies” and can collaborate with industry to improve productivity through “enabling workers to cope with change.” Among other contributions, HE also promotes the “social cohesion”, or the “willingness of members of a society to cooperate with each other in order to survive and prosper”

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<sup>39</sup> Ibid., 21,23.

<sup>40</sup> OECD, “Benchmarking HE system performance,” 9.

<sup>41</sup> Ibid.

through its contribution to the social, cultural and environmental development of societies.”<sup>42</sup>

In Ireland, it was not until the 1990s that “enhancing research capability within higher education emerged as a key policy objective for the Irish state.”<sup>43</sup> This was followed by establishment of several research-promoting organisations: the launch of PRTL (Programme for Research in Third Level Institutions) in 1998, signposting a “new consensus that investment in research conducted in HE institutions was a crucial element in sustaining economic development”; the creation of SFI (Science Foundation Ireland) in 2000 to administer funds aimed at supporting research activity in specific areas such as Information and Communication Technology, biotechnology and renewable energy; and the creation of IRC (Irish Research Council) to support funding and organisation of research in higher education.<sup>44</sup> The Hunt Report in 2011 emphasises an important role that publicly funded higher education institutions play in the overall research and development activities, as part of the Irish knowledge-based economy.<sup>45</sup>

Internationally, the efforts to invest into research and development as part of the countries’ national strategy have been on the rise for several decades. In Ireland, the percentage of GDP spending on research and development (R&D) – has increased from 0.66% in 1981 to 1.72% in 2011, representing a significant increase over the last 30 years.<sup>46</sup> However, when placed in an international context, the numbers are less impressive, as OECD average GDP spending on research and development was 1.99% in 1981 and 2.3% in 2010, while European Union countries spent on average 1.63% in 1981 and 1.93% in 2011 – with Finland in particular allocating 1.16% and 3.7% to R&D in these years, placing Ireland below the mean.<sup>47</sup>

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<sup>42</sup> Ibid.

<sup>43</sup> Walsh, “A Contemporary History of Irish Higher Education, 1980-2011,” 48.

<sup>44</sup> Ibid., 49.

<sup>45</sup> “The National Strategy for Higher Education to 2030”.

<sup>46</sup> Andrew Loxley, “From Seaweed & Peat to Pills & Very Small Things: Knowledge Production and Higher Education in the Irish Context,” in *Higher Education in Ireland: Practices, Policies and Possibilities*, ed. Aidan Seery, John Walsh and Andrew Loxley (UK: Palgrave Macmillan, 2014), 66.

<sup>47</sup> Loxley, “Knowledge Production and Higher Education,” 66.

Loxley analyses the position of Ireland between 1981-2011 across GERD (R&D as % of GDP), HERD (Higher Education Expenditure on R&D) and BERD (Business Enterprise Expenditure on R&D) and notes that spending has increased overall, except in the area of BERD. In particular, the proportion of HERD financed by industry declined to 4.3% in 2011 (and below 6.1% OECD average), after peaking at 10.2% in 1990.<sup>48</sup> According to Loxley, this seems to suggest that the shift in funding from industry into higher education “has not materialised and that the bulk of the funding for research remains firmly in the public domain.”<sup>49</sup>

Analysis in the 2016 HEA report shows that more recently, increases in R&D spending continue to indicate considerable progress, but remain below the average EU levels and “well below that of innovation leaders.”<sup>50</sup>

### **Restructuring of the IoT Sector – New Knowledge or Mission Drift?**

The existing literature offers a variety of views on the IoT sector restructuring, and the proposed Technological Universities. According to the comparative analysis by File et al. mentioned in section 3, the Irish IoTs are already closer to universities than ‘Universities of Applied Sciences’ sector institutions in many other European countries. Harkin and Hazelkorn argue that for the IoTs, the “ultimate prize of technological university status is crucial.”<sup>51</sup> Hazelkorn and Moynihan emphasise the “growing realisation that national capacity and capability is unlikely to be met by reliance on universities alone,” coupled with the concern over “the lack of critical mass in key fields of science and yawning investment/funding gap vis-à-vis per nations,” building the case for the IoTs to find their niche in the Irish R&D.<sup>52</sup> Despite the potential benefits of the Technological Universities’ contribution to intensifying research and development in Ireland and

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<sup>48</sup> Ibid., 67-68.

<sup>49</sup> Ibid.

<sup>50</sup> HEA, “Third Report of the Higher Education Authority,” 54.

<sup>51</sup> Harkin and Hazelkorn, “Restructuring Irish Higher Education,” 9.

<sup>52</sup> Hazelkorn and Moynihan, “Transforming Academic Practice,” 193.

enhancing regional development and innovation, the restructuring of this scale can be challenging.

With the increased focus on advancing teaching at levels 9-10 (Masters and Doctorate programmes), it will be important to prevent the potential mission drift at lower levels of the higher education framework in Technological Universities. As discussed in section 2, the TU Bill addresses this by promoting teaching and learning at all levels of the HE framework.

In consultation paper for the Irish government, Marginson advises that, “if TUs begin to vacate levels 6-8 they weaken their distinctive mission, there is academic drift and the TU sector begins to self-destruct, reducing the diversity of higher education,” and cites international experience of maintaining levels 6-10:

There are significant international examples of an institution of 6-10 form. For example Victoria University and RMIT university in my own city of Melbourne in Australia cover the same levels. RMIT University also has a distinctively vocational mission across the university, and it emphasizes applied research—as do all of the former institutes of technology that were upgraded to university status in 1988-1990.<sup>53</sup>

In terms of the regional commitment, Marginson argues that, based on the history and activities of Irish IoTs, the newly created TUs sector in Ireland would be more orientated towards research and serving local communities than, for example, its German counterpart which is shaped by a much larger manufacturing sector.<sup>54</sup> When compared to Dutch sector, Marginson finds the IoTs similarly orientated towards local communities, but ahead in research. He concludes that:

Because this kind of mission is already in part understood in Ireland”, it should be possible to achieve it in such a way that a strong TU and a strong classical university can exist comfortably side-by-side in the same city. This is already the case in countries such as Germany and Australia.<sup>55</sup>

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<sup>53</sup> Marginson, “Criteria for Technological University Designation”, 5.

<sup>54</sup> Ibid., 4.

<sup>55</sup> Ibid.

In relation to research, HEA proposes for TUs to be principally focused on “applied, problem-oriented research and discovery, with effective knowledge transfer alongside the provision of consulting/problem solving services that are particularly relevant to the region”.<sup>56</sup> Marginson also envisions applied research mission to be one of the main strengths of the Irish model of a TU, emphasising that it would be connected to “high end professional and occupational training” and facilitate relations with enterprise locally, nationally and globally. Thus, the approach to research in TUs would be “deep rather than broad” in select fields, and gradual, so the quality is not compromised by pressure for quick expansion of research fields, and allowing the academic staff to build capacity for supervision of PhDs.<sup>57</sup> In terms of the research mission, according to Marginson, while TUs would mainly focus on applied research driven by client relations, this should not necessarily preclude from engaging in fundamental research (particularly in the “domains adjacent to the applied research work”), which is also traditionally carried out in universities, to facilitate equality when applying for research funding alongside the existing universities’ and their PhDs and graduates.<sup>58</sup>

Finally, it would be important to consider the potential implications of TU designation for the academic staff in existing IoTs, as they would be responsible for facilitating the generation and transfer of knowledge and skills from academia to the industry and enterprise under the enhanced model. As discussed in section 2, the student enrolments in the IoT sector have continued to grow in the last decade while the number of academic staff has decreased, and so did the funding for the sector.<sup>59</sup> Furthermore, the requirement to increase the proportion of staff holding doctoral degrees and intensify research in the TUs could have implications for some of the academics in the IoTs who have traditionally engaged primarily in teaching. A further study may be needed to determine whether these members of academic staff

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<sup>56</sup> HEA, “Towards a Future Higher Education Landscape.” (Dublin: Higher Education Authority, 2012), 14.

<sup>57</sup> Ibid., 8.

<sup>58</sup> Ibid., 9.

<sup>59</sup> DES and HEA data in Clarke et al., “Country Report Ireland”, 2015, 47-49.

feel the need to obtain additional credentials for their specific fields of teaching.

Continuous and meaningful engagement with all the relevant stakeholders is needed with regards to how to develop the TUs, supporting their potential contribution to development of research and human capital in Ireland, and considering issues around the IoTs' vocational and regional mission, as well as adequate funding of teaching and research in the potential TUs – to enhance the outcomes for students, regional communities and society as a whole.

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