

<THE DISSERTATION TITLE>

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A DISSERTATION

Submitted to

Xi’an Jiaotong-Liverpool University

in partial fulfillment of the requirements

for the degree of

MASTER OF RESEARCH

<THE DATE>

ABSTRACT

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DECLARATION

I hereby certify that this dissertation constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions or writings of another.

I declare that the dissertation describes original work that has not previously been presented for the award of any other degree of any institution.

Signed,

Shuming Zhou

ACKNOWLEDGEMENTS

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# Introduction

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# Literature Review

Introduction of topic related research

研究原因：COVID-19对世界影响巨大，各国都收到了冲击，<https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3644567>, 对于社会，经济，教育各个方面都有巨大影响。

不仅仅是国家，对个人而言也有着巨大的影响xxx，因此这份研究的主题就是对于COVID-19而展开的。其中又以两种不同的政策模式：中国模式和英国模式为例子对新冠疫情进行研究

对新冠疫情的类型分三大主体：对新冠疫情下的人民的研究，对新冠疫情本体的研究，比如医疗方面以及对新冠疫情发展的预测，以及对政府的研究：政策的研究。（这三个）

对人民的研究主要是对疫情的心理和生理的评估，和本研究关系不大，而对医疗方面的研究涉及具体的医学知识，不在本文的探讨范围之内，其次就是对疫情的未来发展的趋势，这是对本文极其相关的点，具体也会在下文探讨。

对政府的研究主要是对NPI的研究，（缺少政府的对经济的影响）NPI代表了具体的政策实施。比如xxx论文就是探讨npi的。当然也有对政策经济代价的研究，比如xxx，提到了中英两种模式下的经济代价。

从另外一个方面看，这些研究又可以

再具体一些，对于这些研究，很多都是孤立的研究，比如单纯探讨疫情下人的心理生理状况，以及单独对npi的研究，其中也有很多是两个要素综合起来研究的，比如oxford的论文，探讨病毒传播率以及NPI的政府政策，以及

<https://www.jmir.org/2020/9/e21419/>

这个文章主要是探讨政策和人民的态度。

当然最和本研究主题相关的，是政府政策以及病毒传染率这两个要素。

通过对这两个要素的研究，我们可以获得政策和传染率之间的模拟过程，并预测将来政策的走向和疫情传染率的发展。这对于公共安全是有重大意义的，也能够为未来新的传染病提供研究方向，比如猴痘。

而对于中英两国不同的抗疫政策的研究也是具有重要意义的，各个国家之间互相借鉴抗疫的模式能够互相进步并获得对政策影响的更加深刻的认识，对全球疫情转好具有帮助

Theme2

目前对于疫情发展的趋势主要使用各种算法，对以下参数进行模拟。

首先是xxx的机器学习模型，对xxx，xxx几个参数进行模拟

其次是Oxford的GA，对xxx，xxx进行模拟

以及xxx的xxx的集中SRI模型，对xxx，xxx几个参数进行模拟

Theme3

但是经过上述分析发现以上的预测算法的参数是欠缺的，并未考虑政策的经济因素，根据上述提到的xxx政策会导致经济代价的不同，而根据xxx事实，英国调整了政策用于开放经济，这说明政策不仅仅影响传染率，也会被经济代价所影响，而中英两国的经济政策的改变也有所不同，因此，对未来政策变化的模拟和未来感染人数的确定需要结合当前政策，具体的模式，以及经济代价。

Does it show knowledge of the research, theory, concepts and opinion related to the topic? Has the literature review been selective and are the criteria for selection and relevance explained?

Is there any critical assessment of the reviewed literature?

Is the relationship between what others have done and what proposed in this project explained? Is the original work clearly differentiated from others?

课题：对中国模式和英国模式的疫情模拟以及验证

主要研究的对象：中国模式，aggressive，英国模式：群体免疫，这两个方面各有事实和论文支持

其次，是每日感染新增感染人数，有太多的数据支持了

再次，是政策的选取，有哪些政策

再次是政策改变，中国为什么不改变，英国为什么改变

经济影响，目前的经济主要的研究有xxx

1. 对疫情模拟的目前有

关键词：

1. Oxford的模型
2. 之前在中期报告或者specification里面提到过的具有博弈或者经济代价的模型
3. AI算法对于疫情的研究到了什么地步：使用的模型是神经网络，输入参数详情见git项目
4. monkeyPox的背景：目前的研究主要在于对其的预防和治疗，预测的有，通过神经网络对monkeypox进行预测<https://www.ejgm.co.uk/download/analyses-of-polynomial-neural-networks-for-prediction-of-the-prevalence-of-monkeypox-infections-in-12400.pdf>
5. 预测的主要的参数和本模拟的参数是不同的: six attributes i.e. province/state, country/region, last update, confirmed, death and recovered cases，这个研究和本文的研究并不是非常贴合，本文所研究的几个attribute主要是：
6. 当前政策+模式+当前感染人数+是否击穿经济底线预判下一步感染人数

# Research Methodology

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# Results

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# Analysis

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# Discussion

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# Conclusions

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