



The Internet as a Catalyst for Social Movements: A Tentative Simulation of Social Mechanisms in the Context of the Arab Spring, Indignados and Occupy Movements

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Connected Life 2014, June 12

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Introduction

Recent wave of protest movements

- Arab Spring
- Occupy Wall Street
- (& Ukraine, Brazil, etc...)

Portrayed as Internet Revolutions

- but were they?
- could they have been?



Introduction

Divided between

- Internet **optimists**; Yochai Benkler and Howard Rheingold
 - many-to-many, more democratic, smart mobs
- And **pessimists**; Matthew Hindman, Evgeny Morozov
 - barely used for politics, centralisation, slactivism
- But their views are
 - **not mutually exclusive**
 - imprecise, not in terms of individual interactions

Research tries to clarify

- How it is **very unlikely** that the Internet would
 - ***not*** have any impact on collective action



Introduction

Examine whether

- The Internet changed the media landscape such as
 - to make the initiation of social movements
 - more or less likely

Focus on communicative social mechanisms

- Theoretical approach
- Using Agent-based Modelling
 - for illustration



Previous Work

It builds on **three traditions**

- 1** Social movements literature
 - core concepts
- 2** Analytical sociology
 - social mechanisms approach
- 3** Formal modelling
 - agent-based models



Previous Work: Social Movements Literature

Models

- Bikhchandani's cascades (social proof)
- Granovetters threshold model
 - personal threshold k for when to join riot
 - $k = 2$ missing from thresholds (0, 1, 3, 3 - ...)
 - two rabble rousers amidst solid citizens
- Epsteins model of protest



Previous Work: Social Movements Literature

Arab Spring literature

- Paulo Gerbaudo, seasonal tribes
- Navid Hassanpour, Internet shutdown drew to streets
- ...

McAdam's 'Dynamics of contention'

- Comparative
 - social mechanisms across time and space
- Uses social mechanisms
 - but not strictly individualist



Previous Work: Social Mechanisms

Social mechanisms

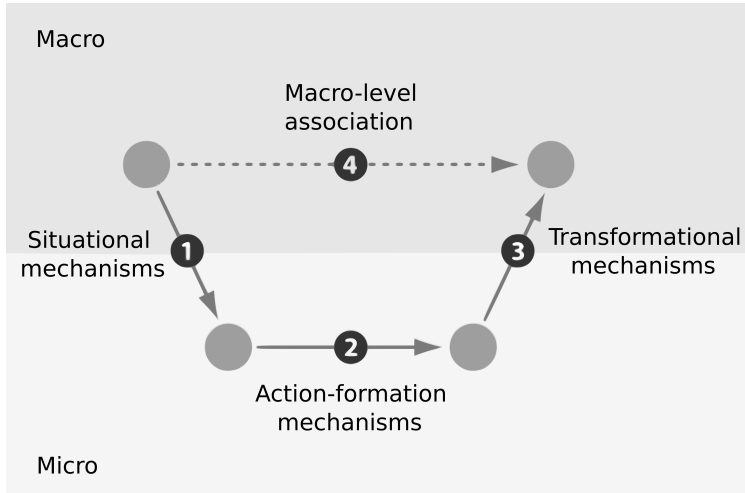
- 'cogs and wheels' of interactions
 - between individuals
- that bring about macro effects
- Jon Elster, James Coleman, Peter Hedstrom

Example

- Triadic closure
 - friends of friends becoming friends



Previous Work: Social Mechanisms





Previous Work: Social Mechanisms

Focus on social mechanisms brings

- Precision, grounding, abstraction
 - examine mechanisms across time and place

Avoid pitfalls of

- Grand theorizing
 - inexact, not grounded, inconsistent
- Merely pointing out (possible) correlations
 - misses emergence, co-founded, imprecise



Previous Work: Formal Modelling

Agent-based Modelling is different from

- Analytic modelling, which has
 - relations between macro-variables (VS Coleman)
- Game-theory, which has
 - rational agents and ignores spatial factors

ABM is used in economics, anthropology and sociology

- Thomas Schelling's segregation model
- Daniel Helbing's, pedestrian movements
- Joshua Epstein's, civic protest model



Previous Work: Formal Modelling

Generative plurality

- Infinitely many models can generate same results
- Same is true for empirical research
 - B follows A , does not mean A caused B , Hume
- Only generative sufficiency can be demonstrated
 - historical proof needs bracketing

But ABM can be done right

- As long as illustrative purpose is clear
 - parsimonious models



Research Questions

Main question

- Could the Internet and the advent of social media
 - have changed the media landscape in such a way as to make
 - the initiation of social movements
 - more or less likely?



Research Questions

How does protest movement initiation differ

- For specific media and
- Across three media landscapes

1 Situation before the Internet

- face 2 face, newspapers, TV, telephone

2 Internet as it was in the 1990's

- passive pages, usenet; silo-style communities

3 Web 2.0

- blogs, social media, mobiles; integrating on- & off-line



Mechanisms

Mechanisms already identified

- Communicative acceleration
 - lower transaction and coordination costs
- Secluded spheres for the progressive
 - reinforcement of beliefs, recruitment, younger
- Micro contributions
 - incremental contributions, ease into activism from 'like'
- Exposure of grievances and hidden transcripts
 - exposed through Facebook to parents / colleagues
- Slacktivism: Internet cutting into f2f time
 - online contributions deter offline ones



Mechanisms

Mechanisms already identified (continued)

- Grievance reminders, continuous stream
 - Twitter keeping people engaged
- Signalling **intended attendance**
 - know that many other people 'are going'
- Easy group formation
 - group pages, coordination automatic
- Social media **relayed through TV**
 - overcomes low penetration rates
- Sharing evidence
 - pictures of police abuse, hard to spin



Model

ABMs at minimum consist of

- Entities that act according to decision-rules
 - often memory, calculations, and observations (of others)
 - in a spatial environment

Entities in the model

- Agents
 - citizens and state-actors
- Environment
 - location
- Media (to be added)
 - newspapers, Radio/TV, telephones (also mobiles), e-mail, webpages, forums, blogs, Twitter, Facebook



Introduction



Previous Work



Research Questions



Mechanisms



Model



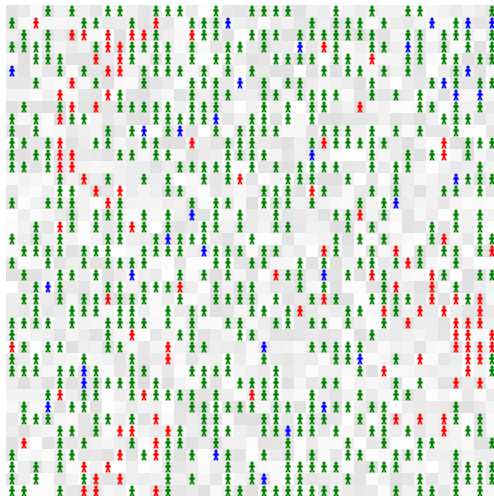
Conclusion



Questions



Model





Model: Secluded spheres

The Internet offers secluded spheres

- Homophily in Facebook/social networks
 - may create enclaves for the progressive
- May make it easier to reach protesters
 - and for critical beliefs to be echoed



Introduction

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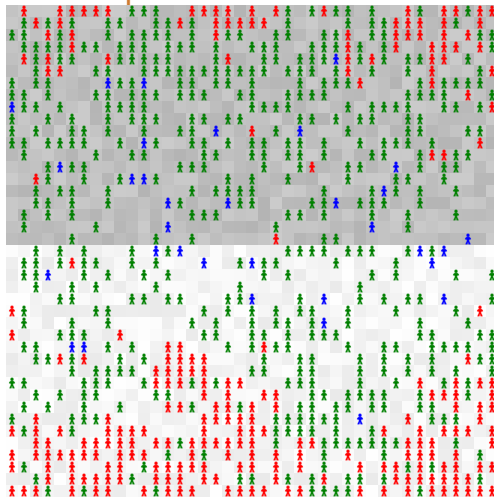
Conclusion

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Model: Secluded spheres





Model: Micro contributions

Micro contributions

- Small incremental contributions
 - allow people to gradually become more active
- First step to activism
 - can be as small as a 'like'



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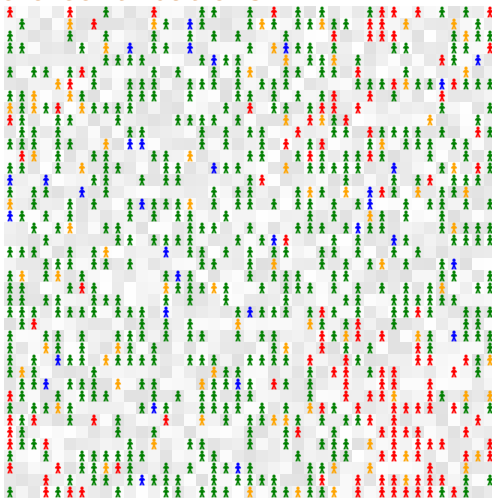
Mechanisms
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Model: Micro contributions





Model: Forum

Bulletin board style forum

- Pull, many-to-many, asynchronous, continuous

Agents can (at each tick)

- Visit
 - read messages (political & non-political)
- Post
 - leave messages, indicate support
- Build trust
 - through repeated interaction



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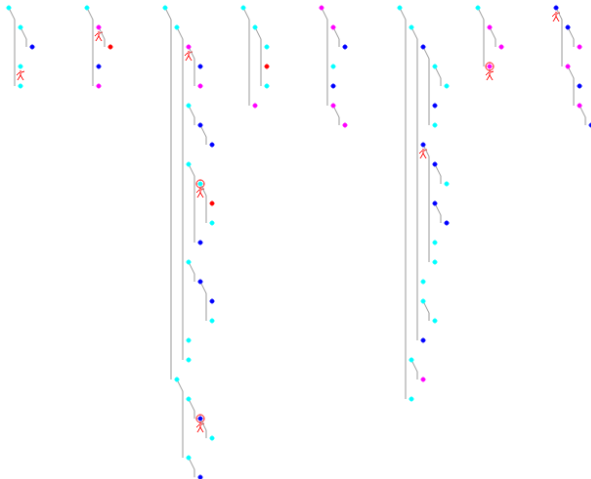
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Model: Forum





Conclusion

The research will contribute in the following ways

- Clarification of the debate, specific for each
 - social-mechanism and
 - media platform (+ interactions)
- Illustration of whether and how the Internet
 - Affects the initiation of social movements
 - Across three media landscapes (before, 90's, Web 2.0)
- It can show how small shifts in media usage
 - can have great effects
 - great consequences don't need great causes



Questions

Any **questions** / comments?



...no need for hidden transcripts... ;-)

Code here: <https://github.com/wybo/movements>