

Revolution, religiosity, and social change during the Arab Spring as viewed by the news and Twitter

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Abstract

1 Introduction

Much has been made of the use of social media during the Arab Spring. At this point, it is almost common knowledge that the emphasis on social media as a *cause* of the revolutions is overblown (Bruns, Highfield, & Burgess, 2013; Goldstone, 2013) . However, many scholars have pointed to the fact that the use of social media may have aided certain aspects of the revolutions in important ways for different people (Gallé, Renders, & Karstens, 2013; Papacharissi & de Fatima Oliveira, 2012; Starbird & Palen, 2012) and that data from social media may help to understand how the revolutions grew and spread (Bruns et al., 2013; Lotan et al., 2011). By the same token, recent work

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has suggested that data from news media during the time of the Arab Spring may have itself been indicative of important developments during that time period Joseph, Carley, Filonuk, Morgan, and Pfeffer (2014); Pfeffer and Carley (2012).

The present work considers behavior on social media and news indicators as two predictors in a more general framework of instability. We consider 3 levels of predictors...

We use increasing nuance w/ Twitter/News predictors...

Our work provides a more nuanced view of the conclusions that can be reached via the analysis of both social media and newspaper data in the context of the underlying social and political climates of the region.

... This finding suggests that high-level analyses of things like the number of tweets from a given country and tweets relevant to a particular word are only useful after careful consideration of the variety of biases inherent in this sort of data and of other important covariates.

1.1 My list of covariates

1. Regime-based

- (a) black-out of media vs not black out media
- (b) religious freedom indices
- (c) personalist/not Goldstone (2013)
- (d) wealth (particularly oil) Goldstone (2013)
- (e) Twitter/News mentions of regime (of some kind) - sentiment?
- (f) Twitter/News revolution/insurgent/violence or adaptation terms

2. International relations

- (a) international network position

- (b) international Twitter/News network position

3. Population indicators

- (a) Twitter/news geospatial spread
- (b) Religious indices
- (c) Ethnic diversity / group indicators
- (d) Twitter/news mentions of ethnic group
- (e) Twitter/news attention / network position
- (f) Twitter/news “class” cohesiveness Goldstone (2011)
- (g) Twitter/news “class” spread Goldstone (2011)

1.2 Research Questions

1. Prediction task: Predict from combination of:

- (a) Did revolution happen? Y/N
- (b) Was revolution quelled? Y/N
- (c) Is it still ongoing - did anything change? Y/N

2. Prediction task: Predict level of instability

1.3 Outstanding todos/questions

1. Most indicators come from news - how do we assess impact of news?
2. What is a reasonable dependent variable for stability?
3. Figure out what is up with that jump in the Twitter data
4. Run Netmapper/get news networks

2 Related work

2.1 misc

Lots of event-data studies. Also, complaints that models can't predict (<http://parusanalytics.com/eventdata/papers.dir/MPSA11.ICEWS.sequence2.1.pdf>). We should develop a model that is both suggestive and predictive.

this special issue: <http://onlinelibrary.wiley.com/doi/10.1111/jcom.2012.62.issue-2/issuetoc>

2.2 (Mishra et al., 2014)

2.3 (Goldstone, 2011)

If a protest draws support mainly from just one class or group (peasants, workers, students, urban shopkeepers, professionals), the state can confront that group as a disruptive force, and seek to unify elites from other sectors against that threat. However, if protestors represent many different groups, it is much harder for the state to find allies against them. Moreover, while a state can claim to be preserving society by acting against isolated disruptive elements, it is far more difficult to maintain legitimacy when acting against a broad cross-class coalition. Elites are more likely to desert the state, creating crippling elite divisions, if protestors represent a broad spectrum of society. In addition, a broad cross-class coalition facilitates further mobilization by creating meganetworks linking prior, tightly-linked within-group networks to each other. The impact of public media in favor of the protestors is also greater if media representation shows protestors as representative of the whole society, rather than as one particular group seeking partisan advantages for itself.

three successful revolutions in the Arab world in 2011, in Tunisia, Egypt, and Libya, all demonstrate the crucial role of cross-class coalitions.

In short, what was just recently a remarkably tough coalition capable of unseating a regime, even of conducting a civil war to do so, can become a pack of feuding forces in the aftermath of successful revolt. There are three ways that this fracturing of coalitions can play out – constructive opposition, paralysis, or polarization.

It is too early to tell which outcome is most likely in the Arab revolts. It is still possible that a future event

2.4 isa from goldstone

<https://isaconf.confex.com/isaconf/wc2014/webprogram/Paper40159.html> When they began, there was hope that the Arab Revolutions of 2011 would be like the peaceful velvet or color revolutions in the USSR and Eastern Europe in 1989, or in the Ukraine in 2004. Instead, with the possible exception of Tunisia, they have turned out to be more like true, classic revolutions with civil wars, counter-revolutions, high levels of violence, and extended periods of turmoil and sudden shifts in government. There are a number of reasons for this difference, including (1) the greater youth of populations in the Arab revolutions; (2) the role of ideological contenders for power – Islamists alongside the secular liberal revolutionaries; (3) the major interventions of outside powers; and (4) greater internal regional, ethnic and tribal divisions.

2.5 Goldstone (2013)

what resulted from this common foundation of unemployment, inequality, corruption, media links and protest differed enormously from country to country. In Tunisia, Egypt, and Yemen seemingly invulnerable autocrats who had ruled for decades surrendered power, stepping down or fleeing in the face of mounting nation-wide popular protests. In Libya and Syria similarly autocratic leaders instead mobilized for war and undertook an all-out military assault on their opponents; Libyas failed

but Syrias regime has so far succeeded in holding on to power. In contrast, in Algeria, Iraq, Saudi Arabia and Bahrain protests fizzled or were quickly snuffed out. And in Morocco, Oman, Kuwait and Jordan monarchs turned to varying degrees of constitutional reform and working with elected parliaments; in these cases reforms appear to have brought peace by deflecting demands for revolt or revolution.

Three factors of regimes that indicate how they faired: -personalist regimes (where a single individual who may have begun as an elected leader, or head of a military or even party regime takes control of the national government) are particularly vulnerable to revolutionary collapse in the event of widespread popular uprising -monarchies () were much more stable -Personalist regimes include the regimes of Saleh in Yemen, Ghaddafi in Libya, Assad in Syria, Ben Ali in Tunisia, and Mubarak in Egypt -Libya is the major outlier among the personalist regimes, with vast oil revenues forming the base of the economy and providing the regime with substantial resources.

-a number of regimes in the region rule major oil and gas producing states. As Michael Ross (2012) has argued, states that control revenues that are easily and secretly controlled, that do not require taxation, and that are large enough to give the state the ability to maintain a large cadre of elite supporters, institutions, and popular largesse have exceptional resilience against popular demands. -The oil-poor states (Morocco and Jordan) went the furthest in their reforms; the oil-rich states (Oman, Kuwait, Saudi Arabia) did the least

-a states position in the international states-system has major consequences for the possibilities of change. - Bahrain faced perhaps the most massive protests ever seen in an authoritarian regime, in proportion to its population. However, it received help from Saudi Arabia.

In sum, the single best key to where regimes in MENA have been overturned or faced massive rebellions is where personalist regimes have arisen. In contrast to the monarchies, which all have either survived with reforms or even become counter-revolutionary, the personalist regimes have all

crumbled with the exception of Syria, which is slowly succumbing to civil war and survives in large part because of a favorable balance of external intervention. Among these regimes, the relative ease with which they were overthrown depended on the availability of oil revenues and the impact of international actions.

It has seemed odd to many that the Arab states not yet mentioned Lebanon, the Palestinian Authority, Iraq, and Algeria were hardly touched by the wave of protests that erupted in the Arab Spring.

This too can be explained by a focus on the state, rather than on the structural or populist reasons for protest. The countries where the Arab Spring had its impact were monarchies and personalist regimes

Egypt and Tunisia changed their regimes with relatively little violence. Yet their change has not gone as smoothly as hoped.

Yemen has had a relatively peaceful change of regime, but it has not had peace

The vast majority of revolutionary transitions took 5 years or more, with a median of 8 years

3 (Expected) Results

We are considering the following three things for three “levels”:

1. How do the following correlate with any of the religiosity or instability indicators?
 - (a) religious terms
 - (b) network graph level metrics
 - (c) mentions of terror groups
 - (d) mentions of ethnic groups
 - (e) revolution/insurgent/violence or adaptation terms

(f) size metrics - number of actors, number of posts, number of words, number of ties

(g) mentions of sports

(h) mentions of disease

2. Overall- is there a stronger signal in news or twitter?

3. Are news and twitter at all correlated with each other?

3.1 General Covariates- the “strong obvious signal”

We study these things in general (not worrying about over time)

I (KC) expect most of this will say - NO CORRELATION

3.2 Country differences by time - the “somewhat hidden signal”

We study these things using the images for country only data where the boxes are normalized by number of articles.

I (KC) expect here that most of this will show - a) twitter and news have similar signals, and most things are across most countries

3.3 Temporal differences - the “subtle” signal

Here we pick the indicators - general instability (low high), level of terrorism, and for each indicator we take the set of countries that are in some level - e.g. low on general instability, then for each value on the indicator we take the variable (e.g. number of articles using a term related to violence) that has been normalized and find the average across the countries for that month. Then we plot the over time images (so there is one line per level of the variable) and talk about the trends - and put a vertical bar where the revolutions began

Here we are therefore analyzing change by time by level of indicator

I (KC) expect here that most of this will show - a) twitter and news have similar signals, and the average for some indicators will be very different

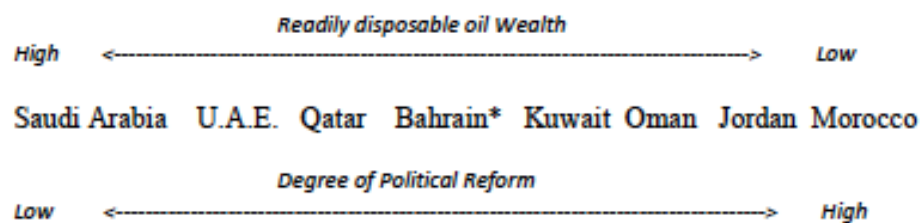
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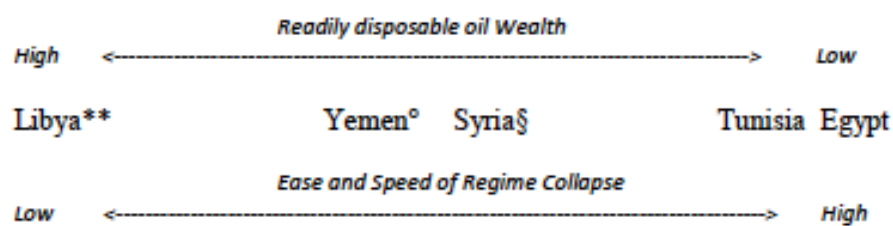
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Figure 1. Monarchies in the Arab Spring



*Counter-revolution assisted by Saudi Arabia external intervention

Figure 2. Personalist Regimes in the Arab Spring



**Collapse hastened by major external intervention by NATO

§Collapse delayed by favorable external intervention by Iran

°Collapse slightly hastened by external intervention by the U.S.

Figure 1: Goldstone (2013)