Six-Year Report on the Arab Spring

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While many viewed the protests and revolutions in North Africa and the Middle East starting in December of 2010 as an "Arab Spring," with a potential for a wave of democratization, our complexity based analysis published in February 2011 predicted otherwise. Not only did our analysis discount the likelihood of democratization, it anticipated a risk of power vacuums and forceful actions to restore order. Here we assess the consequences in 16 Arab Spring states six years after the original predictions. We find that with the one exception of Tunisia, none of the other 16 states became more democratic as a result of the Arab Spring, and three countries, Libya, Yemen, and Syria, became failed states with governance failures and civil wars. The complexity analysis was based on a framework comparing the relative complexity of democracies and autocracies coupled with the recognition that violent change is unlikely to lead to increases of a system's complexity. The validation of this framework provides insight into current and future social movements and suggests strategies of replacement rather than violent revolution in order to achieve higher complexity forms of governance.

Initially, the cascading protests of the Arab Spring [1] were welcomed internationally, with many speculating that a wave of democratization might follow [2–8]. Few distinguished between deposing dictators and expectations of such an outcome. However, a complexity analysis published concurrently in February 2011 [9] predicted that revolutionary activities would be unlikely to result in broader government participation and pointed to dangers of power vacuums and the exercise of force to restore order. Here we provide a six year review of governance change and social unrest concluding that democratization has not occurred for a significant majority of cases in the Middle East. Violent revolutions devolved to civil wars in Syria, Yemen, and Libya and have created massive socio-economic dislocation and impacts on a worldwide scale. These include the emergence of ISIS in the power vacuum in Syria and a large numbers of refugees. Social disorder and violence has become the norm in many areas. Tunisia is the lone clear example of successful

democratization in the region, with emergence of Somalia from a much longer period of disorder a second candidate for democratization during this period. The remaining states show little or no movement toward democratization, with two additional states becoming more autocratic, and two becoming slightly more democratic. We conclude that the complexity analysis [9, 10] successfully anticipated the outcome of the Arab Spring protests over this timeframe.

According to the complexity analysis [9, 10], the infrastructure of democratic governance is more complex than that of authoritarian regimes. It includes extensive institutions and specified decision-making processes that are necessary to hold elections, votes in representative bodies, and negotiations between branches of government. After the overthrow of a regime, time becomes a critical factor, and new or modified government structures must be created to fill the vacuum of state control. Authoritarian regimes can fill the void more rapidly than democratic regimes might, as creation of a more complex governmental infrastructure itself requires extended decision making involving political engagement and negotiation. If anything, revolutionary activity weakens existing governance structures leading to a regression in governance complexity. Eliminating the benefit of existing institutions increases the likelihood that simpler authoritarian regimes will arise [9, 10].

In 2012, our paper titled "Complexity and the Limits of Revolution: What Will Happen to the Arab Spring?" [10] retrospectively analyzed historical revolutions and validated that higher levels of revolutionary violence decreased the chances of democratic outcomes. Six years after the beginning of the Arab Spring, we use this opportunity to analyze the outcomes of direct predictions and consider the validity of the complexity framework as a predictive tool.

The Polity IV data set provides democratic and autocratic measures annually for the 16 Arab states where protests occurred during the Arab Spring, both in the Levant and North Africa: Algeria, Bahrain, Djibouti, Egypt, Jordan, Kuwait, Lebanon, Libya, Mauritania, Morocco, Oman, Saudi Arabia, Somalia, Syria, Tunisia, and Yemen [11] (see Table I). Of these states, three states (Syria, Yemen, and Libya) have become failed states, with civil war, terrorism, and human rights violations throughout. Two others (Egypt and Bahrain) have become less democratic / more authoritarian. Tunisia had a decrease of autocracy and an increase in democracy, Somalia emerged from prior social disorder to a moderate level of democracy, and Morocco and Djibouti had very small increases in democracy level. The remaining 7 states have maintained existing governance structures, with minor liberal reforms and authoritarian moves balancing each other.

Of the five cases of failed outcomes, Syria, Yemen, Libya, Egypt, and Bahrain range from widespread ongoing violence to loss of some rights. Syria's protest movement developed into

outright civil war, and the country is currently fractured between outside actors and a large array of internal groups, with continued authoritarian power structures under President Bashar Al-Assad and his allies in roughly half of the country. Yemen is in the depths of its own internal civil war, with the popular government having been overthrown by various groups, resulting in a civil war sustained by outside actors [12, 13]. Libya has become a battle ground between three governments supported by outside actors [14]. Egypt's democratization attempt failed [15], with the overthrow of Mubarak resulting in a conflict between religious and secular groups, and eventual return to rule by the military [16]. Moves in Bahrain towards democratization were prevented by loyalist elements and a Saudi Arabian intervention, and the minority government has been accused of harassing the Shia majority [17, 18].

The two potentially-successful cases of democratization occurred in Tunisia and Somalia. Tunisia saw significant governmental reform since 2011, and is now the only current Arab-majority state to be listed as "free" by Freedom House, despite continuing ethnic tensions. In the Polity IV data set, democracy ratings in Tunisia rose by 6 points and autocracy ratings fell by 5 points between 2010 and 2015 [19, 20]. In Somalia, the improvement of governance that occurred during this period may not be attributable to the Arab spring. Somalia elected its first parliament in over two decades in 2012. The social disorder that preceded this transition long predated the Arab spring. Thus it is hard to attribute its resolution to revolutionary activity in 2010-11. Even so, the government continues to be supported by the UN and the African Union in a war against the terrorist group Al Shabab and others, so that the conditions cannot be considered to be a completely democratic outcome [21, 22].

We might also consider small improvements in democratic institutions in Morocco and Djibouti. In Morocco, where the government was already considered at least nominally to be a parliamentary democracy, Arab Spring protests facilitated a moderate party coming to power peacefully, leading to some democratic advances [23]. In Djibouti, elections held in the aftermath of protests against the government were deemed by international observers to be free and democratic [24], though the incumbent president was reelected with 80% of the vote [25]. Minor favorable changes within these countries are consistent with the complexity theoretical framework, as revolutionary activity was limited and changes occurred incrementally within the existing democratic institutions.

The remaining 7 states have not seen significant governmental change over the past six years. These states are Algeria, Jordan, Kuwait, Lebanon, Mauritania, Oman, and Saudi Arabia [11]. Many of these states made temporary advances toward democracy, but conservative responses and internal conflict have prevented sustained democratization.

Using these numbers, at most only 2 out of 16 (13%) of Arab Spring states achieved significant democratization during this period, while only Tunisia, 1/16 (6%), can be directly attributed to the protests. Thus hopes for democratization have not been realized. Predictions based upon the complexity analysis from 2011, that revolutions and protest movements more frequently lead to authoritarianism than democratization, are robust and important ways of anticipating revolutionary outcome.

In summary, of all the countries involved in the Arab Spring, Tunisia is the sole case where democratization clearly succeeded in the context of the Arab Spring protests. Based upon the time period alone, Somalia might be argued to be an additional case of democratization. However, together these two favorable results do not support a view of widespread democratization due to the Arab Spring. On the other hand, the dislocation of governance in Syria, Yemen and Libya, and deterioration of democratic institutions in Egypt and Bahrain provide strong evidence for the contention that violent revolutionary activity does not tend to give rise to democratic outcomes. Moreover, the dangers of power vacuums and the difficulties and need for force in reestablishing order appear to be confirmed. Counter to reported widespread speculations at the time embodied in the name "Arab Spring" these results strongly support the complexity framework as a predictor of outcomes of revolutionary activity.

Country	2010 Democracy /Autocracy	2011	2012	2013	2014	2015
Algeria	1 / 4	0 / 2	-88 / -88	0 / 4	0 / 4	0 / 4
Bahrain [-]	1 / 6	0 / 8	0 / 10	0 / 10	0 / 10	0 / 10
Djibouti [+]	3 / 1	3 / 1	3 / 1	5 / 1	5 / 1	5 / 1
Egypt [-]	1 / 4	0 / 2	-88 / -88	0 / 4	0 / 4	0 / 4
Jordan	2 / 5	2 / 5	2 / 5	2 / 5	2 / 5	2 / 5
Kuwait	0 / 7	0 / 7	0 / 7	0 / 7	0 / 7	0 / 7
Lebanon	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0	6 / 0
Libya [- -]	0 / 7	-77 / -77	-77 / -77	-77 / -77	-77 / -77	-77 / -77
Mauritania	0 / 2	0 / 2	0 / 2	0 / 2	0 / 2	0 / 2
Morocco [+]	1 / 4	0 / 2	-88 / -88	0 / 4	0 / 4	0 / 4
Oman	0 / 8	0 / 8	0 / 8	0 / 8	0 / 8	0 / 8
Saudi Arabia	0 / 10	0 / 10	0 / 10	0 / 10	0 / 10	0 / 10
Somalia [++]	-77 / -77	-66 / -66	5 / 0	5 / 0	5 / 0	5 / 0
Syria [- -]	0 / 7	0 / 7	0 / 9	0 / 9	0 / 9	0 / 9
Tunisia [++]	1 / 5	-88 / -88	-88 / -88	-88 / -88	7 / 0	7 / 0
Yemen [- -]	1 / 3	1 / 3	3 / 0	3 / 0	-77 / -77	-77 / -77

TABLE I: The Polity IV data set annual democratic and autocratic ratings for countries involved in the Arab Spring. Ratings use a scale from 0 to 10, with 10 being closest to democracy or autocracy, respectively. Special codes include: -88 for transitional periods, -77 for social disorder (anarchy), and -66 for foreign interference indicating a weak national government [26]. We indicate the change between 2010 and 2015 (reflecting current conditions): [- -] transition to failed states, [-] more autocratic states, [+] minor increases in democratic institutions, [++] successful democratization. Note that changes in Somalia may not be attributable to the Arab Spring protests.

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