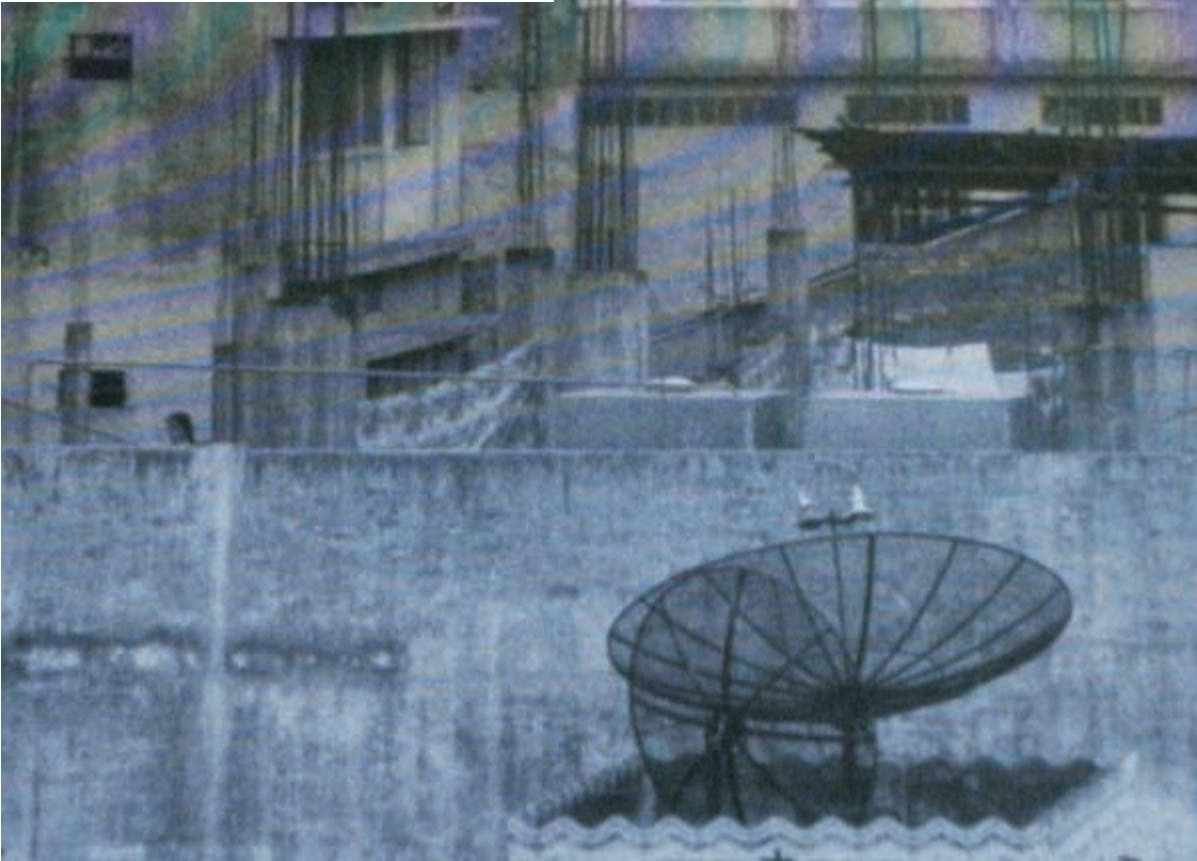


**THE DIGITAL  
ORIGINS OF  
DICTATORSHIP  
AND DEMOCRACY**

*Information Technology  
and Political Islam*

Philip N. Howard



# **The Digital Origins of Dictatorship and Democracy**

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**The Digital Origins of  
Dictatorship and Democracy**  
Information Technology and Political  
Islam

Philip N. Howard

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This is for four men who served in the military and gave me things. Gordon Howard (Captain, 3<sup>rd</sup> Canadian Infantry) raised a great father for me; Colin Stratton (Sergeant, Australian 3<sup>rd</sup> Army Division) raised a great mother for me. Although I only knew them much later in life, Fonzie Graham (Seaman First Class, U.S. Navy) helped raised his fabulous granddaughter, and Charlie Moskos (Specialist, Combat Engineers, U.S. Army) helped raise me as a scholar.



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Doha, Qatar

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# **The Digital Origins of Dictatorship and Democracy**



## Introduction: Political Communication and Contemporary Muslim Media Systems

Is democracy advanced through the diffusion of new information technologies? Among the diverse countries with large Muslim communities, how do such technologies provide capacities and constraints on institutional change? In this book, I demonstrate that over the last fifteen years, technology diffusion has had an important causal role in democratization. New information and communication technologies, such as mobile phones and the internet, have provided new infrastructural conditions, with distinct outcomes for systems of political communication and broad consequences for the institutions of democracy.

I accept two foundational assumptions proposed by many Islamists: that Islam is not inherently incompatible with democracy; and that information and communication technologies (ICTs) have, in the past, played a significant role in the institutional evolution of political cultures in the Islamic world (see Allawi 2009; Nasr 2005; Abou El Fadl, Cohen, and Chasman 2004 for an introduction to these propositions). I argue that the introduction of digital ICTs provides an occasion for significant change in how political culture is produced and consumed around the world. My goal for this book is to present and assess the evidence about the introduction of digital ICTs and changes in the production and consumption of political culture in developing countries with significant Muslim communities.

The internet has had a notable impact on relations between peoples and nations. In particular, ICTs allow people to learn about each other, and often also about themselves. In the West, major news media often peg stories about ICTs on one of two hooks. The “technologies of freedom” peg appears in news stories that celebrate the use of information technologies such as mobile phones in allowing democratic activists to organize effective public rallies. For example, when protesters in Indonesia out-maneuvered Suharto’s police and ended his autocratic rule, news stories were quick to highlight the fact that email and mobile phones had significantly improved the organizational capacity of that country’s democratic leaders. The “technologies of

oppression” peg appears in news stories that examine the ways that authoritarian regimes use the very same ICTs to oppress their populations. For example, news stories highlight the ways that Iraqi insurgents coordinate military campaigns, spread political messages we dislike, and publicize beheadings. When such news stories are specifically about how the internet improves the organizational capacity of terrorists, such groups are called “e-jihadis,” “cyber-terrorists,” and “dot-extremists.”

Despite what the news coverage might suggest, cyber-terrorism is not the primary online activity in the Muslim communities of the developing world. Most people use the internet to watch movies and sports events, to play video games, to keep in touch with family and friends, to chat and flirt, and to shop. These other domains of social activity can become small political acts and specific expressions of political culture, especially under state-run censorship. Unlike in the advanced democracies, political engagement online in many of these countries is not about voting online, reviewing legislative proposals, and discussing public policy options. It is about discussing the personal politics of sexuality and relationships. It is about getting news and information, sometimes about the West, but more often about neighboring Islamic countries. In large part, these other realms of social activity online are *made* political because of the active censorship in the more authoritarian Islamic regimes. Thus, the topic of “Muslim politics online” is not simply about news consumption or political discussion over the internet—the areas of concern to many mainstream political communication researchers—but about the multiple spheres of social life that are interesting for their cultural politics. Thus, in this book I will often use the term “political culture” to refer not just to the most obvious political content, news, and information, but more broadly to the range of social activities that take on political importance in societies where ruling elites work hard to manage cultural interaction. Cyber-terrorism is not even the most important of the obviously political aspects of internet use in these communities and countries. In this book, I argue that a much more significant, but much less understood phenomena is the development of relatively mainstream, civic discourse over Muslim media systems.

Research on the impact of new information technologies in the developing world is becoming ever more sophisticated, though it is encumbered in three ways: a focus on metrics, indicators, and digital artifacts over theories and explanations; more exuberance about potential social transformation rather than understanding observed changes; and the urge to periodize digital-divide scholarship. This first stage of research often involves trying to map trends in culturally disaggregated ways. Developing indicators can be a sensible first step in social science research: deciding who or what to measure, and how, will have a long-term impact on the data that later

scholars have to work with. Yet debates over the methods of measurement, on their own, rarely generate new theories about the causes and consequences of the digital divide. During the research for this book, it was fascinating to see how many scholars rely on a few data sources, chiefly the International Telecommunications Union, the World Bank, and the World Resources Institute. Indeed, these organizations often just duplicate each other's poor quality data. Many researchers rely heavily on this data for their comparative or single-country case studies, rather than collecting original observations or combining data in interesting ways. The same data tables appear over and over again. This dependency has shaped our understanding of the digital divide, by tightly binding the concept of the digital divide to levels of internet and mobile phone use per capita. As argued in this book, there are much better ways of measuring and conceptualizing the digital divide, the conditions of information infrastructure, and outcomes in political institutions or processes. Wherever possible, the tables in this book assemble data from original scholarly sources that are categorical and comparable, rather than only reproducing abstracted indicators. There is another scholarly approach that involves critically reading Islamic digital artifacts, such as websites, videos and emails, for meaning. But it can also be useful to assess the impact of meaning, evaluate how meaning is used in the service of power, and generalize beyond the critic's interpretation to the experience of internet users in multiple Muslim communities.

Second, much of the early academic work has been concerned with stating the potential path from technology diffusion to social transformation. Authors define an archetype of e-government, e-democracy, or e-commerce, and review the potential opportunities or challenges to authoritarian rule and economic wealth. Invariably, authors find more potential challenges than opportunities, because the archetype itself is based on standards and expectations defined by the advanced democracies and economies in the West.

Third, even though the research into ICT diffusion in the developing world is a relatively new field, some scholars have been overeager to periodize the literature. The most common way of doing this is to organize the literature on the digital divide into early, middle, and late periods, across which assumptions have changed. At first, researchers thought the digital divide was about inequality in the distribution of hardware and software; then, researchers thought it was about inequality in the distribution skill sets; and later, researchers thought the digital divide was about the distribution of hardware, software, skills, and the strength of key cultural institutions needed for ICT diffusion. In fact, looking over a wide swath of literature for this book, it is hard to find anyone who ever really thought that the digital divide was just about hardware and software distribution. Quite the contrary,

all researchers go to great pains to say that their theoretical contribution goes beyond the digital-divide-is-about-hardware-access rubric. Scholarly literature should only be periodized once in a while because doing so rarely advances our understanding in original ways; it can be a tedious task for the author, and it can result in a tedious text for the reader.

Scholarly endeavors aside, the internet has certainly had a role in shaping Western perceptions of Islam. Based on news coverage alone, readers in the West might think the internet is mostly for helping Islamic terrorists organize, the object of strategic interest in conflict between Muslim groups, and a useful means of censorship by Muslim governments. Propaganda from Islamic fundamentalists has gone online, and the internet is used to circulate videos of beheadings by violent extremists. For example, in 2004, the savage beheading of Nick Berg was recorded and distributed online, providing international news coverage for the terrorists' activities. Digital communications infrastructure is a key asset that parties involved in conflict will fight over. Lebanon's Hezbollah has developed a private network of fiber-optic cables, which it considers a crucial part of its security infrastructure, and attempts by the Lebanese prime minister to disassemble the communications grid caused the worst gunfights in Beirut since the end of that country's civil war. News stories also highlight government censorship in Muslim countries. In December 2007, police in Tehran warned 170 cybercafés that they ran the risk of being closed down. Subsequently the police closed 24 cafés and arrested 23 people for "immoral behavior." Eleven arrested were women, with two charged with publishing false information, disturbing public opinion, and publicity against the Islamic Republic. In May 2009, the Iranian government banned local access to Facebook, presumably because of the fear that opposition leaders were using the social networking site to organize voter turnout in elections. Yet the internet in Islamic countries is more than just a conduit for fundamentalist propaganda, an infrastructure that warring Islamic factions fight over, or a tool for state censorship.

Melvin Kranzberg wrote that "technology is neither good nor bad, nor is it neutral" (1985, 50). Both democratic activists and authoritarian dictators use digital technologies for both good and evil. At the same time, we know such technologies are designed with specific applications in mind and have an impact on the structure and content of political communication. Thus, there must be a way of assessing the overall impact of new technologies across many countries—digital technologies are not neutral. Elsewhere I have argued for a moderate analytical frame, between the technological determinist perspective (purporting that communications tools cause social changes) and the organizational determinist perspective (purporting that society causes technological changes) (Howard 2006). I believe it is more useful to take a position of "soft determinism" in which technology designers and policy makers

make decisions that provide capacities for and impose constraints on users. And every once in a while, social groups have the opportunity for collective action that allows for a reshaping or undoing of these design capacities and constraints. The argument that technologies are simply good or bad is rarely convincing, but it would be a mistake to argue that across the diverse Islamic cultures of the developing world, technologies are neutral.

Figures 0.1 and 0.2 chart the rising levels of media use among Muslim households in the countries included in this study. The mass media that dominated systems of political communication in Muslim communities were often controlled by the state or cultural elites. These broadcast media were most often used for approved content that small groups of people produced for the large groups of people who consumed culture. The new digital media, including the mobile phones and the internet, are used both for cultural consumption and personal communication, are not as easily managed by states and cultural elites, and are tools that provide people with the opportunity to produce and consume cultural content. I argue that these systems of political communication are different enough that it is crucial to study the Muslim experience with information technology and democratization in a focused way, and that the comparative method is the best approach to understanding the diverse and shared experiences across Muslim communities. Additionally, I argue that the political internet is an important object of inquiry, and many

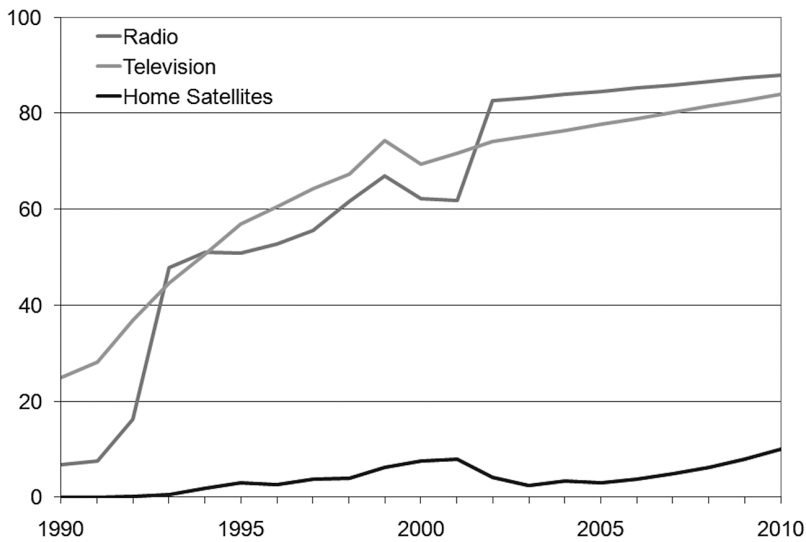
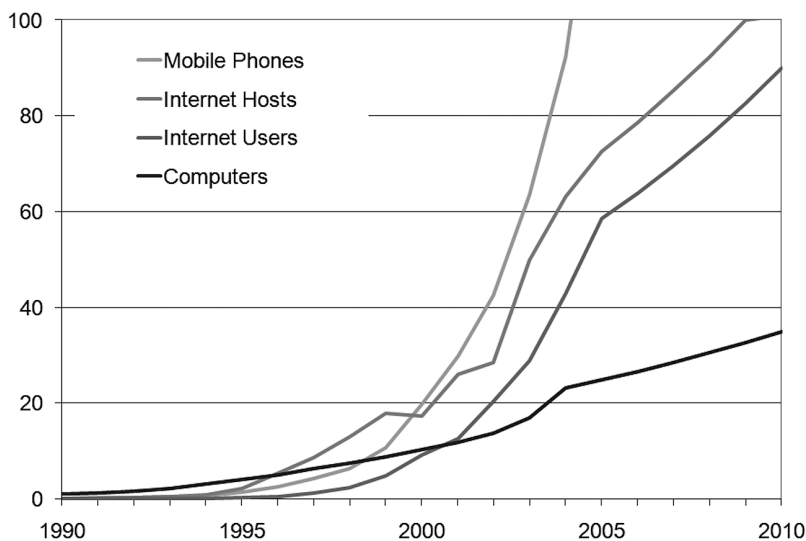


Figure 0.1 Mass Media for Communication and Culture, 1990–2010



**Figure 0.2** Information Technologies for Communication and Culture, 1990–2010

*Sources:* Based on author’s calculations from multiple sources: percentage of population Muslim (CIA 2010); number of households, internet users, mobile phones, households equipped with televisions, households equipped with radios (ITU 2006); internet hosts (Internet Software Consortium 2010).

*Notes:* Mobile phones, computers, internet users, and home satellites are calculated per 100 Muslim households around the world. Both radio and television are calculated as the percentage of Muslim households equipped with a radio or television. Internet hosts are calculated per 10,000 Muslim households.

of the existing approaches to such inquiry have been biased by the tendency to be more interested in Islamic fundamentalism than civil society.

The number of countries with complete data varies from indicator to indicator. Averages are always computed from the countries with available data, and since 2000 the majority of countries analyzed in this study report this data.<sup>1</sup> The number of Muslim households in each country was computed by taking the estimated percentage of the national population practicing Islam and the estimate of the number of households in each country. In particular countries, Muslim households may be larger or smaller than the national average, but the assumption for this figure is that the national proportion of Muslim populations is similar to that of Muslim households. The household is a sensible unit of analysis for this data because many of these media are resources shared among kin. In wealthy economies it makes sense to collect information on “personal computers” because many people have access to at least one computer, often for personal use, and these computers are replaced every few years. But in many developing countries,

mobile phones and computers are shared resources, available for use by several family members and not discarded or replaced as quickly.

To distinguish those technologies that allow for decentralized cultural production, Figure 0.1 includes mass media technologies such as, home satellite systems, radio, and television. Figure 0.2 includes several measures of ICT diffusion, including mobile phones, computers, internet hosts, and internet users. Radio and television diffusion is measured as the percent of households with at least one of these media. Personal computers, home satellite feeds, mobile phones, and internet users are measured as the number of these items per 100 households.

Overall, these graphs reveal how rapidly new media technologies have diffused in comparison with more traditional media. Even though the units of each trend are different, measures for mobile phones, internet users, and hosts per Muslim household over the last 10 years have very steep slopes. Measures for the proportion of Muslim households equipped with a radio or television are high, though the slope for these trend lines is not as steep over the full 15-year period for which there is data. There is a radio or television in 80 percent of households; at least one person in 60 percent of Muslim households has used the internet, though this person is not always a regular user. There is at least one mobile phone in almost every household.

This graph also reveals that the television and radio are important means of cultural consumption for most households around the developing world. While satellites are prevalent in every urban skyline, the diffusion rate of home satellites has been low and stable for several years. Like computers, these resources are sometimes collective resources, tapped to serve multiple households. Thus it is likely that the proportion of households with unregistered satellite access is higher than reported here.

Yet these graphs also suggest that new media—technologies that allow users significant control in cultural production—have steep diffusion curves and increasingly rival the reach of television and radio media. In 2000 there were approximately 20 mobile phones per 100 households, and today there are 144 mobile phones per 100 households. Although this data cannot be strictly interpreted to mean that 20 percent of households in the year 2000 had a mobile phone, it is safe to say that today, there is a mobile phone user in almost every household, and that many Muslim households have several mobile phone users.

It is interesting that computers and internet users had a similar diffusion curve until about 2001, at which point the number of internet users per 100 Muslim households began to outstrip the number of computers per 100 Muslim households. How can there be more internet users than computer users per household? There are likely two explanations for this trend. First, as mentioned above, computers are more often than not a collective resource,

so a national estimate of user population must include people who have access through a friend or family member's computer. Second, internet access points such as cybercafés and libraries are an important means of connectivity in Muslim countries, so this number must also include the number of people who use the internet outside the household.

### **WHY STUDY THE MUSLIM EXPERIENCE WITH INFORMATION TECHNOLOGY AND DEMOCRATIZATION?**

There are 75 countries with significant Muslim communities: 48 countries where Muslims are in the majority and at least 50 percent of the population is Muslim; 27 countries where Muslims are an important minority and at least 10 percent of the population is Muslim. Despite the obvious diversity of these countries, three attributes make all 75 countries a useful comparison set: most of these countries have been slow to democratize, compared to the rest of the developing world; most of these countries have more rapid rates of technology diffusion than the rest of the world; social elites in most of these countries use technologies to censor political culture and manage information flows in ways not often found in the rest of the developing world. For readers only interested in the hypothesis that technology diffusion can cause democratic outcomes, these 75 countries represent a good conservative sampling of cases to study.

The goal of this book is to analyze the ways in which new information technologies have contributed to democratic entrenchment or transition in countries with large Muslim communities. Consequently, the comparative method recommends coverage of countries where technology diffusion may have made some countries more authoritarian, along with countries where technology diffusion has been rapid but without clear democratic outcomes. By analyzing the range of experiences across the countries with significant Muslim communities, some of the necessary or sufficient conditions for contemporary democratization can come to light. Since there is a dearth of comparative data on the diversity of political life in many of these countries, the tables and graphs are oriented around relevant subgroups of countries: those that have experienced democratic transitions, those that have experienced democratic entrenchment, those that have remained authoritarian, and those in a liminal state of crisis, war, or collapse. Moreover, there are several good reasons for treating these particular countries as a valuable analytical set.

First, there are several modular political phenomena across nations with significant Muslim populations: political action based in significant part on the emulation of successful examples from others. Such imitation occurs through policy emulation and coordination among many Muslim countries,

especially concerning telecommunications standards, technology-led economic development, and internet censorship. For several decades, the interior ministers of Arab countries have held an annual conference to discuss successful ways of securing their regimes, and in recent years their agenda has extended to the best ways of handling media and internet censorship. But such imitation also occurs among communities of social elites and the leadership of democratization movements. As will be demonstrated in the chapters ahead, ruling elites learn about and imitate the successful strategies of their autocratic neighbors. At the same time, successful democratization strategies in particular countries are transported into the collective action strategies of movements in other countries. Through regionalized processes of elite learning and defection, Muslim countries seem to democratize in similar ways, not necessarily following the recipes for democratization that have been followed in other regions and other time periods. Across many Muslim countries, democratization movements appear to be learning to use information technologies from each other, linking up to share experiences, and transporting successful organizational strategies. Yet modular political phenomena are not just found among social movements: state bureaucracies learn censorship strategies from each other; political parties in Muslim countries learn how to use ICTs from affinity parties in other countries; and journalists learn new online research and publishing strategies from each other.

Second, many Muslim countries have shared technology diffusion patterns and similar systems of political communication, which are together distinct from those in other developing countries. Holding economic wealth constant, Muslim countries have among the highest rates of technology adoption in the developing world. Moreover, many Muslim governments have responded to the new information technologies in consistent ways: censorship strategies have been developed with similar objectives of cultural control; internet service providers are held legally responsible for the content that flows over their networks; government agencies work aggressively to support (Islamic) cultural content online. This combination of policy responses is unique to the countries that are home to large Muslim communities.

Since the diversity of experience in Islamic countries is as striking as the similarities, we are faced with the problem of creating appropriate categories to distinguish types of Muslim countries. What are sensible categories for types of Islamic countries? Obviously, every country has some distinct attributes, but rather than always presenting data on all countries in which a significant portion of the population is Muslim, is there a more parsimonious way of comparing and contrasting attributes and trends? Individual countries can be treated as case studies, but it is useful to look for patterns and

trends that exceed a single country's experience with a multitude of digital technologies and the many attributes of democratization.

To illustrate this diversity, there are categories in which Muslim countries could be organized into geopolitical regions and institutional groupings. In Central Asia, there are several post-communist regimes governing large, linguistically diverse Muslim populations, where religious expression has simply been illegal for 80 years and dictators maintain strong control over the development of political institutions and natural gas wealth. In contrast, much of Muslim North Africa speaks Arabic as a primary or secondary language. While this region is also home to countries with ruling elites, some of these countries can be described as emerging democracies, with higher levels of income and diaspora communities across southern Europe. The Gulf States include several strong constitutional monarchies, regimes bolstered by significant oil revenues, and countries where the primary concerns of political security include a resolution of the Palestinian-Israeli conflict and the suppression of local democratic initiatives. Several of these regimes also see themselves as guardians of holy sites and texts for particular variations of Islam. Iran is an Islamic republic, without an Arabic culture, which sees itself as a political instantiation of a particular variation of Islamic governance. It too has oil resources, but it also has a rapidly growing population a history of rebellious cohorts of youth bent on regime change.

On the Indian subcontinent, Pakistan, India, and Bangladesh are home to very large and very poor Muslim populations. In recent years, democratic practices in Pakistan have appeared fleeting, practices in Bangladesh have stabilized, and practices in India have deepened. Still, these regimes govern populations with significant income inequalities. These states must also manage a unique set of security issues: environmental degradation regularly becomes a threat to population health and stability; the resolution of the Kashmiri conflict is of primary importance to India and Pakistan (two nuclear states); and military elites are active participants in the political life in Bangladesh and Pakistan. Southeast Asia is also home to linguistically diverse Muslim cultures, wealthy and multiracial Malaysia and Singapore, and the populous but poor emerging democracy of Indonesia. In Russia, Islam is the largest minority religion, and politically dispossessed Muslim communities have been able to put religion on the national agenda through violent insurgencies in several regions.

In terms of economic wealth and geopolitical alliances, it would also be possible to divide the Muslim world into Arabic- and non-Arabic-speaking populations, oil-producing and non-oil-producing countries, Arab League and non-Arab League countries, secular and Islamist regimes, or by the Sunni, Shia, or Wahhabist perspectives of ruling elites. In southeastern Europe, Turkey, and the Caucasus, politicians increasingly look to the West

for political support and economic opportunities. And every country in the West has communities of all the aforementioned nationals, communities with their own interesting diasporic politics, and different levels of engagement with political life in their adopted countries. Since this study is particularly interested in technology diffusion, the primary task of the introduction is to develop a new, more meaningful way of categorizing patterns of technology diffusion.

Given the diversity of political structures and institutions and the levels of conflict and disagreement between some Muslim countries, there is not much evidence that the “Muslim world” is a meaningful political category. It is a term of generalization, about as useful as the “Christian world” or “the West.” In important ways, Western countries are more homogenous than Muslim countries. Almost all are democracies; almost all have the same high standards of living; English is the language of business; the majority of citizens trace their ancestry to other Western countries; and the majority of citizens travel only to other Western countries. It is not a stretch to argue, as some have, that major urban centers in the West—such as London, New York, and Toronto—have more in common with each other than they do with geographically contiguous secondary cities and rural communities. Yet many would also argue that there is enormous variety in the economic, political, and cultural attributes of these countries; those of us who live in the West know something of this diversity. Similarly, I argue that there is enormous diversity in the economic, political, and cultural institutions of Muslim countries; it is crucial that we try to know something of this diversity.

To describe these countries as homologous—shared economic, historical, cultural, and technology diffusion patterns—is not to say that these countries are culturally homogenous. The 75 cases studied here are a set of homologous countries with similar levels of economic development, some shared history, some shared cultural norms, and a shared media ecology. Moreover, these countries share patterns of ICT diffusion, and there are similar patterns of public use and policy response. Many of the countries in this study share a history shaped by the spread of Islam, but that does not make them all the same; as I argue in the chapters ahead, these important cultural differences help explain differences in the diffusion of technical innovations.

However, to use this category critically, it must be deconstructed through the illustration of common trends, examples that illustrate differentiated experience, and subcategories that have meaningful integrity. For example, the comparison of trends in Muslim countries with trends in other developing countries and highly developed countries reinforces this category by defining it relative to other aggregated groups. Similarly, the comparison of trends between types of Muslim countries deconstructs this category by illustrating the diversity of experience within the Muslim world. In practical terms, this

critical deconstruction occurs through the presentation of meaningful subcategories in tabular data, and by privileging evidence and examples from Muslim communities. There is a vast and growing literature on the impact of ICTs in the developing world, but I favor theoretical insights that have been gleaned from lived experience in developing Muslim communities.

In this analysis I will often refer to the Muslim experience and will often deconstruct trends to illustrate the diversity of experience in types of Islamic polities. I conceive the Muslim experience in the developing world as an analytical category that has many meaningful and coherent subcategories. Sometimes this means describing trends across all the countries sampled, or discussing cultural and historical differences. My approach highlights and explains continuities and uniformities, and pays special attention to change and variety. The case evidence in the chapters ahead is organized around four kinds of institutional change: a group of countries that experienced a democratic transition; a group of countries that experienced democratic entrenchment; a group of countries that experienced very little institutional change and remained somewhat or largely authoritarian; a group of crisis states where the circumstances of political, military, or security crisis make them unlikely to reveal much about the recipes for democratization.

Yet accepting a sample frame always means making some strategic exceptions. There are several important countries, such as China, Thailand, and the Philippines, in which a small minority of practicing Muslims have put cultural and religious issues on the national political agenda through political activism, violent insurgency, and the effective use of information technologies. China is not in the set of countries analyzed here. Even though its Uyghurs have a violent separatist movement, this Muslim community is relatively small in size. These cases may share some of the features of other cases in the study, but they are excluded from comparative analysis because of the relatively small size of their Muslim communities.

Along with some special exceptions, some special inclusions need to be made. Russia is in the set of countries analyzed here. Between 15 and 20 percent of Russia's population is Muslim, with Chechnyan insurgents an important part of the country's domestic political problems. Russian political life is strained by interfaith, security, and state-mosque tensions. Several countries are included in the set at different points for different reasons: Djibouti, the Maldives, Suriname, and Western Sahara have just under 500,000 residents but relatively large Muslim communities; Georgia has a politically significant Muslim population, measured at 9.9 percent of the total population. Western Sahara and the West Bank are not often considered states but are often treated as political units in the large social science data sets about technology diffusion. ICTs have an increasingly important role in politics in these countries,

and the status of these political units is extremely important in the community of Muslim nations, so these are included as political units.

This study of the Muslim countries of North Africa, the Middle East, Central, South, and East Asia is important for several reasons. Many are middle income countries, occupying a level of development between the poorest countries of Africa and Asia and the wealthiest in North America and Europe. They represent a kind of developmental mid-point. Understanding technology diffusion and politics in these countries may help us understand how poor countries will develop. Yet at the same time, this is a unique cohort of countries. The existing research on democratic transitions in countries with significant Muslim populations suffers from two seemingly contradictory conditions: much of the existing literature either ignores the political diversity among these countries or is too narrowly comparative to make helpful generalizations. Large-scale, quantitative, and cross-sectional studies must often collapse fundamentally different political systems—autocracies, democracies, emerging democracies, and crisis states—into a few categories or narrow indices. Such studies must also diminish the role of cultural diversity among the populations who practice Islam. Area studies that focus on one or two countries get at the rich history of technology diffusion and political development, but rarely offer conclusions that can be useful in understanding some of the seemingly intractable political and security crises in other parts of the world. Finally, Muslim countries have some of the fastest technology adoption rates in the world, high levels of literacy, computer-savvy populations, and informational sophistication. Many governments are carefully balancing state and individual security concerns, and the balance of security in these countries has implications for stability in neighboring countries and the developed world. Indeed, the information policies of Muslim governments have significant implications for information access not only for their own citizens but for the rest of the world.

There are, of course, some peculiar things about technology diffusion in these countries. The countries with the highest levels of internet use, such as Qatar and the United Arab Emirates, are regularly labeled “not free” by international observers. In some Central Asian countries, governments that have received foreign aid have been forced to develop more open information access policies, while governments with significant income from natural resources have been able to retain tight regulatory control over ICTs. Moreover, many Muslim countries are now at a crucial transition point. Economically they are doing well, but since economic wealth is increasingly dependent on information infrastructure, will the economic benefits accruing through open ICT access for citizens outweigh the risks of cultural exposure?

### WHY A SET-THEORETIC, COMPARATIVE METHOD?

Islamic scholars and country specialists may feel that treating countries with significant Muslim populations as an analytical set oversimplifies the diversity in political life and technology use. However, the goal of a comparative method is to carefully simplify events and patterns so that we can see the shared attributes of many countries, rather than be overwhelmed by the contingencies and details of each case or damage the way that particular community experiences are represented. The current research on new media ICT and international development tends to be single-country case studies, studies of particular technologies, or cross-case comparisons of several countries selected for their similarities in culture, geography, and stage of economic development (many of these studies are identified in Appendix B). Currently, scholars are posing several questions about the role of ICT in international development, questions that require comparative analysis to answer meaningfully.

Yet efforts to explain democratization are often least convincing when they are reliant on traditional statistical modeling techniques and large aggregated datasets which explain variation in a sample but do not reveal causal recipes. For example, we know that a democratic transition in one Muslim country may have derived from a similar, earlier change in a neighboring country. Social movement leaders consciously emulate prior examples in neighboring countries, and political leaders deliberately formulate responses based in some part on the recent experiences of regional leaders. Destabilization in one country may have a spillover effect on a neighboring country; policy leaders across countries often form international coalitions based on prior experience together and cultural affinities. In the digital arena local events on the other side of the planet are often monitored daily, such that even though not all political phenomena are modular, it may not be useful to strive for a statistical model in which economic wealth, demography, or cultural factors functionally explain contemporary democratic transitions (Beissinger 2007). To get the causal recipes, the approach taken here is cross-national and comparative.

This research is cross-national in four respects. First, I will often treat a country as an *object* of study. The nation-state is the primary unit of analysis for much of the narrative in this manuscript, but also for the organization of tabular data. This will be particularly apparent in Chapter 2, in which I discuss e-governance in states where a majority of the population is Islamic. While it would be useful to have data that were more grounded in social categories for which people find affinity, the nation-state is often the best aggregate for people within a territorial space. Second, I treat the country as the *context* of study. Many of the social movements I discuss are organized

and embedded within particular political environments. Third, I develop theory about technology diffusion and democratization by building on existing studies of single countries, or studies that compare a few cases in detail. This allows me to generalize from many of the small set comparisons in a qualitative, comparative manner. Finally, this research is *transnational* in character, in that the linkages between states and substate actors are of key interest, especially in that such linkages provide a source of identity for Muslims within particular countries (Kohn 1987).

There have been a significant number of single-country case studies in which ICTs have been part of the contemporary narrative of both democracy and dictatorship. The comparative perspective taken here will not be limited to the standard cases, or even to the situations that stand out as incidents of technology driven, enhanced, or enabled regime change. Instead the comparative perspective taken here will embrace situations in which information technologies most assuredly had no role in democratic transitions, situations in which information technologies were successfully used by authoritarian elites to become better better bullies, and situations in which information technologies played a role in modest improvements in regime transparency, but not sudden democratic transitions. Thus, the comparative approach is anathema to those who would generalize from singular studies in which information technologies had a central role in a grand democratization project, and those who would generalize by only relying on statistical models of international data on government effectiveness in terms of internet penetration. Methodologically, the comparative approach is a powerful and productive one that confronts theory with data.

Sometimes this approach is called “set-theoretic,” in that attention is given to the consistent connections across a set of cases, especially the causally relevant commonalities that are uniformly present in a given set of cases (Ragin 2009). The set of cases at hand is the population of countries with large Muslim communities, and there are 75 of these. There are many plausible paths to democratic transition and entrenchment, and the argument of this book is that in recent years, information technologies have opened up new paths to democratization in some Muslim countries. Indeed, the lack of technology diffusion may have closed off opportunities for democratization in other Muslim countries. Quantitative researchers often turn “democratization” into an indicator for which the Western democracies are the standard. In this set-theoretic approach, I assume that democratization among these countries is best calibrated according to a more grounded standard, set at the high end by countries such as Turkey and Indonesia and at the low end by Libya and Turkmenistan. This calibration does not preclude the theoretical possibility of an Islamic democratic ideal type. But it does assume that healthy, functional Muslim democracies may not look like Western

democracies. If there is to be such a thing as a democratic Islam, I assume that it will have distinctive features, and that only some of the 75 countries with large Muslim populations will have all of these features. Many of the countries will have many of the features. Set-theoretic reasoning allows for fine gradations in the degree of membership in the set of Muslim democracies, and it requires evidence about each country's degree of membership in the set of countries that have experienced democratic transition or entrenchment.

Moreover, a set-theoretic explanation of the role of ICTs in contemporary democratization requires that we identify a consistent set of causal relations between technology diffusion and democratic outcomes. The explanation must provide a high proportion of cases with a given set of causes that also display democratic outcomes. To construct this explanation requires fuzzy set logic, which does not explain variation in a sample through reductive correlational statistics. Instead, fuzzy set logic produces general knowledge about the role of information technology in contemporary democratic transitions through the accumulated experience of particular countries where rapid technology diffusion among political actors such as the state, parties, journalists, and civic groups had an observed impact on the domestic balance of power, the opportunity structure for social mobilization, or the "cognitive liberation" of citizenry.

Fuzzy set logic offers general knowledge through the strategy of looking for shared causal conditions across multiple instances of the same outcome—sometimes called "selecting on the dependent variable." For large-N, quantitative, and variable oriented researchers, this strategy is unacceptable because neither the outcome nor the shared causal conditions vary across the cases. However, the strategy of selecting on the dependent variable is useful when researchers are interested in studying necessary conditions, and very useful when constructing a new theoretically defined population such as "Islamic democracy." Perhaps most important, this strategy is most useful when developing theory grounded in the observed, real-world experience of democratization in the Muslim communities of the developing world, rather than developing theory by privileging null, hypothetical, and unobserved cases.

#### **WHY STUDY THE POLITICAL INTERNET?**

New ICTs such as the internet have had a very important role in creating new patterns of political communication in advanced democracies (Chadwick and Howard 2009). Do they also have a role in the development of political discourse in the developing nations with significant Muslim

communities? Al Gore, who worked hard to promote the development of a national information infrastructure, used the rhetoric of technological determinism to promote a global information infrastructure to the International Telecommunications Union in 1994: “To promote, to protect, and to preserve freedom and democracy, we must make telecommunications development an integral part of every nation’s development” (Gore 1994). Looking back, to what degree have new information technologies undermined authoritarianism and promoted democracy? Has the internet had an important role in creating new patterns of political communication in Muslim countries?

In the Western news media, ICTs have been blamed as tools for Islamic fundamentalism. On the other hand, it is easy for regimes to censor news production, and the internet appears to be the best or only way for many citizens to access uncensored news. Online news sources allow Muslims to read about other Muslim communities. Satellite news services have done much to help create a pan-Islamic identity, but since such services require major capital investment, they are only built by governments and wealthy elites. Although internet use is affected by literacy, education, and costs, the ability of citizens to both produce and consume political culture online is a significant change in the pattern of political communication in many Muslim cultures—especially in the emerging democracies and authoritarian regimes.

Broadcast radio and television provide the staples of news and cultural content for citizens. Yet a growing amount of broadcast content is streamed online, reconnecting diasporic communities with political events, security issues, and daily life in home countries. The internet is the way that the West learns about life in Muslim countries, and the way that Muslims in many countries learn about each other and about the West.

Political leaders in Muslim countries face important challenges in both regulating and promoting internet use. The study of political issues around internet use reveals much about larger political issues in modernizing Muslim countries. And even though leaders in these countries are considering the political, economic, and cultural implications of the internet, it may be difficult to predict the full impact of the information revolution.

## ORIENTALISM ONLINE

Edward Said’s well known accusation is that Western scholars, policy makers, and journalists read the East in a way that actively reproduces tropes, including the homogeneity of Islamic identity and the burden of religious fundamentalism. Interestingly, both the journalistic and scholarly coverage

of the role of technology in the development of political Islam has continued this trend.

In the English languages news media, stories about how the internet is used for terrorism outnumber the stories about how the internet is used for civic discourse (Kelley 2002; Rozen 2003). Special terms are fashioned to reveal the clash of modernity with anti-democratic intent: young Muslims with internet access are most likely to be “e-jihadis,” organizing “online fatwas,” and coordinating “cyber-terrorists.” Indeed, scholars and pundits have also been focused on “terror online” (Weimann 2006; Dartnell 2006; Cragin et al. 2007; Giustozzi 2001) and “internet jihad,” often missing the importance of the aggressive, systematic and successful campaigns to draw young Muslims into civil society (*Economist* 2007). The internet, I argue here, has a much more important and understudied role in the development of civil Islam. Yet a critical review of the incidence of such attacks, at least against the United States, reveals that few may even qualify as what is commonly understood as cyber-terrorism. If cyber-terror is a politically, religious, or ideologically motivated attack against a national information infrastructure that instills fear through destruction or disruption, then (fortunately) we have only fictional scenarios and sensationalist headlines that set up cyber-terrorism as a prognostic—not diagnostic—analytical frame (Cavelty 2007).<sup>2</sup>

Cyberterrorism is certainly worthy of study but must not be treated without equal attention paid to civic Islam online. At the very least, any sample of terrorist emails, websites, or other digital artifacts is made problematic by the active production of such content by Western security agencies attempting to sow dissent, as well as distrust among militant organizations (Schmitt and Shanker 2008). Moreover, Giustozzi’s close study of the Taliban in Afghanistan revealed that many of the ICTs adopted were, in fact, quickly abandoned for lack of electrical power, computer training, and the risks of physical exposure (Giustozzi 2001). While there certainly are individuals using the internet to produce anti-Western rhetoric and to loosely support terrorist activities in the West, the actual connection between these individuals and armed resistance fighters in the Middle East is tenuous.

Along with the news trope of terror online, the “network” concept itself was appropriated by the U.S. administration—and then echoed by the press—for use as a narrowly defined, onerous, and insidious organizational form synonymous with Islamic dissidents (Stohl and Stohl 2007). For these policy makers, networks were treated as information systems for uniplex and ahistorical social relations that were hierarchically organized, top-down command and control structures, with globalized reach connecting homophilous groups. Most important, this orientalized version of network theory stipulated that specifying the boundaries of networks would reveal politically

meaningful relations. In contrast, research on network dynamics has demonstrated their multifaceted nature as communication systems. The network form of organization is held together by historically constructed—and limited—relations that allow for dynamic, emergent, adaptive, and flexible associations. Ultimately networks are constructed from other heterogeneous networks that can be described as local s global, or both (Stohl and Stohl 2007). By using the network metaphor in these unusual ways, crucial conduit of modern terrorist networks is the internet, which in the initial reaction to 9/11 was quickly characterized as the fundamental infrastructure of anti-Western, Islamic fundamentalist activity.

Thus, both news coverage about the role of the internet in global politics and a new network metaphor for peculiar organizational forms have helped reproduce orientalist tropes. Bunt's work on the translation of Islamic culture to digital media has done much to illustrate how the internet can support civil dialogues, and the next steps are to demonstrate how much of this is happening, to demonstrate specific political outcomes, and to identify general institutional consequences (Bunt 2000, 2003, 2009). The intellectual object of this book, then, is to disabuse us of these tropes by investigating the multifaceted aspects of contemporary political communication in Islamic media systems and highlighting the impact of the internet on civic life in the developing countries with large Muslim communities.

## BOOK OUTLINE

This book is about political communication and democratization in Muslim countries. Some scholars have argued that the internet does not reach enough of a mass audience in the Middle East to warrant comparing its effect to more accessible mass communication media such as radio, television, satellite television, books, and newspapers (Rugh 2004). There are four major reasons why this position is no longer tenable. First, in many Muslim countries internet use has increased rapidly, to the point where it is a widely used information technology, whether access is at home, work, or a public internet access point such as a library or cybercafé. Second, the rubric of “mass communications” is probably no longer suitable, given that ICTs enable both the production and consumption of political culture and given that they distribute personal communications between networks of family and friends. Third, technology access has become a touchstone for modernization in almost all of the countries studied here. Public policy goals are geared toward stimulating IT industries; modernization is equated with telecommunications infrastructure; cybercafés spring up in cities and rural areas alike. Fourth, the arrival of new information technologies is providing

opportunities to reinterpret Islamic texts, discuss gender politics, develop collective identities, and articulate shared grievances and aspirations. Chapter 1 offers a conceptual framework and some useful indicators for studying technology diffusion and political institutions.

Chapter 2 addresses two important questions: Which governments are online, and what is the relative capacity of their information infrastructure? There are many aspects to the information society, and this chapter reviews the e-government literature relevant to Muslim countries. It traces the recent history of technology adoption by Muslim governments and presents some unique data, collected by the World Information Access project ([wiaproject.org](http://wiaproject.org)) and the Project on Information Technology and Political Islam ([pitpi.org](http://pitpi.org)), which allows for the comparison of wired states. This chapter has two important findings. First, there is a surprising amount of *dependency* in the global information society, with much of the information infrastructure of Muslim countries actually residing in advanced democracies such as the United States, the United Kingdom, and Canada. Second, while information technologies seem to be at the heart of newfound efficiency, transparency, and accountability in emerging democracies, pursuing economic benefits and extending state capacity have forced even the most authoritarian states to make policy trade-offs that create the conditions for transparency and accountability.

Which political parties are online, and what is the capacity of their information infrastructure? Chapter 3 reveals that political parties play different roles in Muslim countries. In some, parties participate in competitive elections; in others, a single political party manages the state apparatus; and in yet others, political parties are hollow and ineffectual. The majority of these political parties support a vibrant secular political discourse online. This chapter traces the recent history of technology adoption by political parties and presents two findings. First, whereas in the past political parties could easily own, control, and incapacitate the news media, today it is much more difficult for them to maintain the same control over digital media. Second, contrary to received wisdom, the internet has not been taken up significantly by minor parties and radical challenger groups. Rather, it is the large, long-standing political organizations that have invested in ICTs in a big way. Chapters 2 and 3 explore the innovative ways that states and political parties use ICTs to offer more said services and opportunities for a political voice to citizens.

Perhaps one of the most important changes over the last decade has been in the business and practice of journalism in countries with large Muslim communities. Chapter 4 reviews the ways in which the internet has changed the organization of the newsrooms and the resources available to journalists. It documents the rise of an important new political actor—citizen-journalists.

Equipped with a cell-phone camera or blog, they have had tangible impacts on the local and global news supply during political and security crises.

Chapter 5 develops grounded theory about the role of information and communication technologies in civil society development. Civic groups are important for democratization because they are, by definition, social organizations independent of the state. Across the Muslim world, civic associations are sprouting up as a result of the new, supportive information infrastructure provided by ICTs. Relatively cheap consumer electronics allow such civic groups to find new members and build affiliations with groups in cities and other countries. Such groups are particularly important in Muslim countries where political parties are illegal, and this chapter reviews the ways in which the internet has had an impact on the political pacts negotiated between social elites and authoritarian regimes, pacts that determine the pace of political change.

In contrast, Chapter 6 explores the more pernicious applications of ICTs, which are used in many Muslim countries not simply for censorship but for actively managing collective identity. The first part of the chapter explores the ways that political culture is now produced and consumed in Muslim countries. A review of the most recent findings about techniques for political censorship and the efforts of activists to overcome these constraints follows. This chapter then demonstrates how political elites have effectively used the new media to construct and manage a transnational Muslim identity for people with significantly different cultural backgrounds. Through digital technologies, social elites attempt more than news censorship and email surveillance. They work to manage particular domains of Islamic political culture and identity formation for youth.

In the concluding chapter, I take a transnational approach to answering a crucial question: What role does the internet have in the democratic transitions of Muslim countries? The previous four chapters review the impact of ICTs on four principal political actors: states, political parties, citizens, and journalists, exploring the causal pathways that particular countries have taken to becoming strong, resilient democracies. This chapter puts it all together using an innovative new statistical approach—fuzzy set logic—to summarize the real-world relationships between technology diffusion and democratic change. Using original data, and using data from established sources in original ways, I demonstrate that technology diffusion has had a crucial *causal* role in improvements in democratic institutions.

I find that technology diffusion has become, in combination with other factors, both a necessary and sufficient cause of democratic transition or entrenchment. For the majority of Muslim countries, the closest thing to civic debate is occurring online. Blogs and online multimedia content, produced both by diasporic communities and by activists within authoritarian

states, form the oppositional narratives in countries like Iran, Saudi Arabia, and Pakistan. Neither state bureaucracies nor political parties can monopolize the production of political culture: civic groups and individuals now contribute in significant ways. New ICTs are used for debates over the interpretation of Islamic texts, gender, and security issues. While there is certainly a strong presence of radical Islamic sects and terrorist propaganda online, the number of civic groups and political parties using the internet for democratic discourse and activism is more impressive (and in need of support). Protests and activist movements have led to successful democratic insurgencies, insurgencies that depended on ICTs for the timing and logistics of protest. Sometimes democratic transitions are the outcome, and sometimes the outcome is slight improvement in the behavior of authoritarian states. Clearly the internet and cell phones have not on their own caused a single democratic transition, but it is safe to conclude that today, no democratic transition is possible without information technologies.

#### A NOTE ON PRESENTATION OF COMPARATIVE EVIDENCE

This argument is made from a qualitative, comparative perspective. In practical terms, this means that much of the data about developing countries has been recalibrated with other developing countries as reference points, rather than using the advanced democracies of the West as reference points. Instead of relying on absolute counts of internet users per capita, or daily newspapers per country, values are indexed across the comparison set. In other words, online news in a country is said to be important not just because it has many online news sites compared to the rest of the world, but because it has a relatively large share of the all the online news sites, and a relatively large share of the internet user base found across the full sample of 75 countries. In this way, the evidence marshaled here is grounded in the most sensible comparison set. Moreover, to standardize the comparison, tables in the chapters ahead use a common set of icons. Many of the icons are intuitive, and serve to help summarize lots of case-specific knowledge in a comparable manner. Other symbols are used for topic-specific comparative attributes that are described in the text accompanying each chapter.

Re-calibrating data in this way is an important epistemological advancement. Rather than comparing the Muslim experience with technology diffusion, democratic politics, or economic productivity to the ideal as represented by Western countries, it is possible to compare the experience among Muslim communities. This means that instead of using a metric of internet use

**Table 0.1:** Presenting Comparative Data

Table Symbols	Meanings
▲, ▼, ×	Improving, declining, no change
·, ·, ●	Small, medium, large
·, ■, ■	Low, moderate, high
+, +, +	Slow, moderate, rapid growth rate
□, □, ■; ○, ○, ●	Poor, modest, good or other categorical attributes as described in specific tables
✓	Known to have attribute
×	Known to not have attribute
..	Missing data

relative to the highest values in the West, the metric should be relative to the high and low values of neighboring Muslim countries and communities. Much of this calibration is done through indices based on ratios of ratios (Howard et al. 2009). For example, we already know that economic wealth is the best predictor of how many computers are in a country. So it would be most useful to index the level of computer diffusion across all the countries in the comparison set, holding wealth constant. First, the ratio of a country's economic output to the output of all countries in a given year is calculated. Then the ratio of computers in a country to all the computers in all the countries is calculated. The ratio of these two ratios, after some mathematical adjustments, reveals whether a country has about the proportion of ICTs it should given its productivity. Expression A reveals the level of computer diffusion in a country, given its share of economic output, relative to all the other countries in the study.

Expression A: Ratio of Two Ratios

$$Ratio\ of\ Ratios_t = \frac{\frac{PC_{country}}{\sum_{all\ countries} PC}}{\frac{GDP_{country}}{\sum_{all\ countries} GDP}}$$

Half the distribution of possible values from this ratio of ratios ranges from 0 to 1 (disproportionately small share of computers in a country, given its GDP) and the other half ranges from 1 to +infinity (disproportionately large share of computers in a country, given its GDP). However, by taking the natural log of the ratio of ratios, the index will become more balanced: from -infinity to 0 becomes less than proportionate share, and from 0 to +infinity becomes more than proportionate share.

Expression B: Technology Diffusion Index

$$TDI_T = \ln \left( \frac{\frac{PC_{country}}{\sum_{all\ countries} PC}}{\frac{GDP_{country}}{\sum_{all\ countries} GDP}} \right)$$

Expression B creates a value for how far above or below a country is from the technology diffusion and economic productivity norm of the countries in the study. Where ever possible, GDP is reported as purchasing power parity. Computing such values for all 75 countries yields an index of how far each country is from this grand mean.

Much of the data used in this study will be recalibrated so that the major points of comparison are set by other Muslim countries. It is particularly useful to do these kinds of calibrations to help weight for economic wealth or population. Per capita income in the United Arab Emirates is 200 times that in Somalia, so these two countries represent the upper and lower bounds of wealth in the set of countries. For more on this calibration, see Philip Howard, Laura Busch, Dawn Nafus, and Ken Anderson, "Sizing up Information Societies—Towards a Better Metric for the Cultures of ICT Adoption," *The Information Society* 25, no. 3 (2009): 208–219. Appendix A and B provide technical notes and a case-specific reference list. For replication data, photos, digital copies of this manuscript, and fs/QCA syntax, please visit [www.wiaproject.org](http://www.wiaproject.org) and [www.pitpi.org](http://www.pitpi.org).