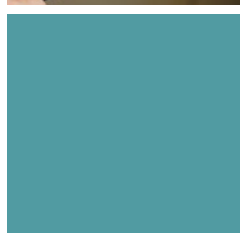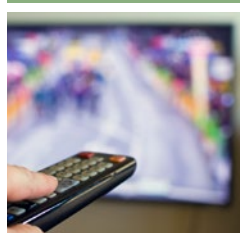# Throwing the Switch:

An Update on the State of the Global Transition to Digital TV Broadcasting

BY JOHN BURGESS

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National Endowment for Democracy
Supporting freedom around the world

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ABOUT THE AUTHOR

John Burgess is a Washington journalist and author. He worked for almost three decades at the *Washington Post* as a reporter, foreign correspondent, and editor. In the late 1980s and early 1990s, he covered the early days of television's transition toward digital broadcasting for the Post. He has written three previous reports for the Center for International Media Assistance, *Throwing the Switch: Challenges in the Conversion to Digital Broadcasting; Evaluating the Evaluators: Media Freedom Indexes and What They Measure;* and *Media Literacy 2.0: A Sampling of Programs Around the World.* Burgess also has a long-time interest in Southeast Asia. His historical novel *A Woman of Angkor,* set in twelfth century Cambodia, was published in 2013.

PREFACE

This study serves as an update to a report by the same author, *Throwing the Switch: Challenges in the Conversion to Digital Broadcasting,* published by CIMA in 2009. Because 2015 is the year many countries set as their deadline for the conversion from analog broadcasting to digital, CIMA felt that this was an appropriate time to check on how the transition is going. We are grateful to John Burgess, a veteran journalist and author who has reported extensively on the topic of the migration to digital television, for his research, expertise, and insights on this topic.

Introduction

A technology transition that has the power to bring new views and voices to the television airwaves has yet to deliver those benefits in many developing countries. Costs, political meddling, courtroom feuds, and regulatory inexperience all contribute to holding them back.

In countries such as Georgia, international media development groups and local civil society are fighting to ensure the benefits of the switch, which retires old "analog" TV broadcast systems in favor of modern ones that employ digital technology. But in many other countries—Nigeria is an example—the change is proceeding with scant input from non-governmental groups.

Ideally, the switch fosters pluralism on the airwaves by creating new channels through more efficient use of the world's limited supply of broadcast spectrum. But the transition can also become an ominous tool for the domination of television by governments.

Indeed, the switch to digital TV is among the most important challenges facing the media development community today, a process rife with opportunities for governments and well-connected tycoons to further their control of media. Since television is the number one medium for most of the world, with an estimated 5 billion sets in use, manipulation of the transition can deprive large groups of people of access to independent voices and alternative views.

In the run-up to the June 2015 switch-over deadline that many countries have adopted, examples of this can already be found. One of them is Russia, where the Kremlin has long reined in independent stations. With little public input, the country's first digital multiplex transmission system—which can broadcast numerous programs at once—was planned and put into place to carry the signals of state TV and Kremlin-vetted private channels. Today the system's eight channels reach about 82 percent of Russia's population, with plans for 98 percent coverage by the end of 2015, largely financed by the government.

Transmitters for a second multiplex are now in place to reach the homes of about 50 percent of Russians. It has a similar state-friendly line-up, including channels operated by the Ministry of Defense and the Russian Orthodox Church. What remains of independent television in Russia is found mainly among local and regional broadcasters. According to the Washington Post, regulators have yet to allocate digital channels to most regional broadcasters. That could serve to push free channels to subscription cable or satellite distribution, where their financial viability would suffer due to new legislation banning advertising on those services.
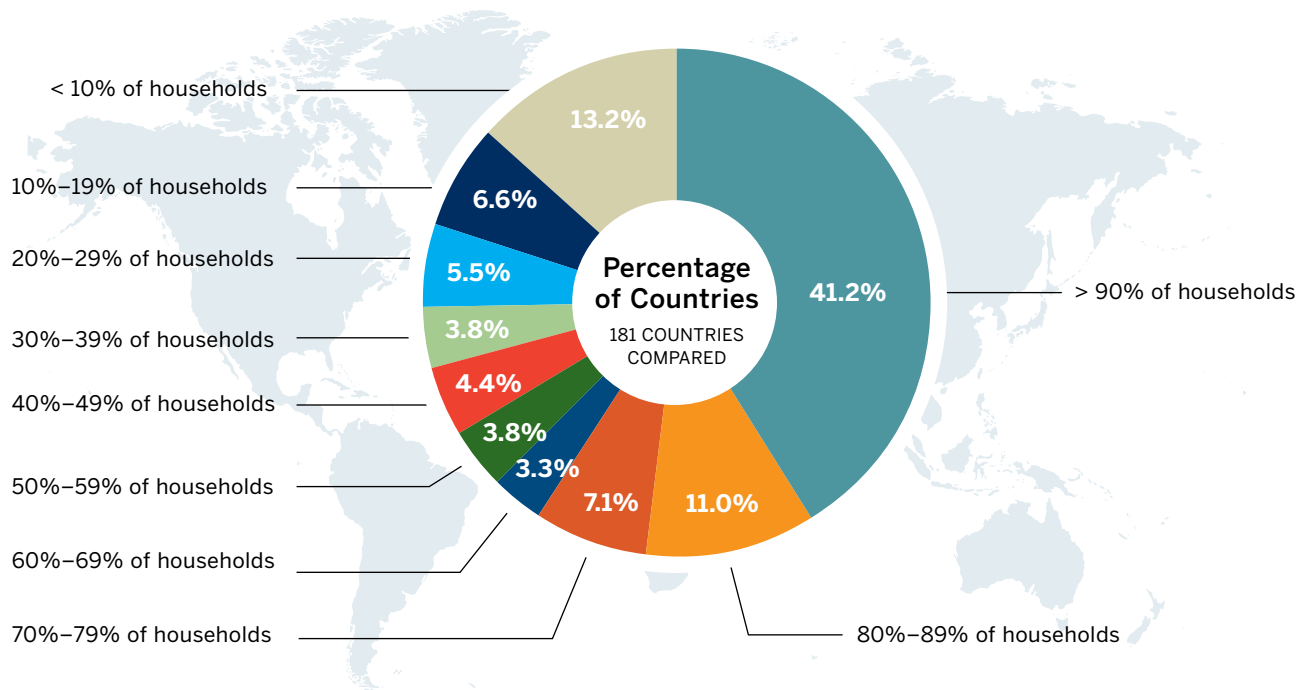
There are 5 billion TV sets in use around the world.

Thus the net effect of the shift in Russia has been to extend the reach of the government's political message beyond what was possible with analog and, so far, to deny the new technology to stations that offer alternative voices.

In China, because television is even more tightly controlled, the switch is having little impact on political pluralism as established broadcasters migrate to digital.

In Venezuela, meanwhile, government critics say the transition has become a weapon against them. In 2013, the country's first multiplex was switched on, with Globovisión, the prime opposition voice on the TV airwaves, left with no channel. The government said this was because the multiplex was only for national channels, not regional operations like Globovisión. But the station called its omission from the new transmission system a "death sentence" that could knock it off the air when analog broadcasting eventually ends. (Government pressure subsequently forced the sale of Globovisión to a new owner. Following major programming changes, it is no longer viewed as an opposition outlet.)

Households with Televisions: How Do Countries Compare?

< 10% of households
10%–19% of households
20%–29% of households
30%–39% of households
40%–49% of households
50%–59% of households
60%–69% of households
70%–79% of households
80%–89% of households
> 90% of households

Percentage of Countries
181 COUNTRIES COMPARED

13.2%
6.6%
5.5%
3.8%
4.4%
3.8%
3.3%
7.1%
11.0%
41.2%

Civil Society Involvement Helps Preserve Pluralism

The digital switchover is going better in countries that have allowed more space for civil society and media groups to get involved. Local advocacy groups in some countries have played an important role and are stepping up to the challenge to try to safeguard digital TV's potential for pluralism.

By one count, Georgia now has 11 different civil society groups taking part in a drive to assure fair rules for the new medium. They include Transparency International, the Open Society Foundations (OSF), the Georgian Association of Regional Broadcasters, the Georgian Young Lawyers Association and the Institute for Development of Freedom of Information.

"Georgia has a history of a very bad media landscape, a very politicized landscape," says Ana Dabrundashvili, senior researcher at Transparency International's Georgia office. (In 2007, riot police stormed into opposition TV station Imedi to shut it down.) "We hope that with the digital switch, it will not continue." She believes that the process is generally proceeding fairly.

Georgia recently licensed its first multiplex operator. But activists see remaining challenges. For instance, Ucha Seturi of the Institute for Development of Freedom of Information worries that the system being put in place will result in no commercial TV in parts of the country, making people there dependent upon state stations.

Yet even in a country where advocacy groups are organized and working hard, there is yet no sighting of the ultimate benefit, new voices on the air. "The sector is quite crowded as it is," notes Dabrundashvili. New channels would find it hard to get enough ads to stay in business.

In Afghanistan, international NGOs have invested serious time and resources on the new medium. While much of what airs in the country is entertainment, television plays an important political role that was on display in coverage of the recent presidential election.

As the transition drew near, understanding of the technology and regulatory framework was limited, among government officials as well as broadcasters. So Internews, working with Albany Associates and using USAID funding, brought in Cedomir Markovic, a Bosnian technical expert with long experience in television and radio regulation. Since

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2011, he's been providing technical advice to the Afghan Ministry of Communications and Information Technology on three month-assignments with a goal of creating a system that is fair, open, and affordable to established broadcasters and newcomers alike.

Though the country struggles with tenuous security and widespread corruption, the transition has gone forward. In August 2014, legislators, executives in the Afghan broadcast industry, and senior ministry officials gathered at a Kabul hotel to formally inaugurate digital broadcasts, the first in the country. Digital service is scheduled to begin in other cities later this year.

So far, one multiplex operator has been licensed. Channel leasing prices, Internews says, will be a comparative bargain, as low as $1,400 per month per broadcasting market for a 24/7 signal for national services, compared to $3,000 to $8,000 a month for analog.

Plans call for the country to build a network of four multiplexes with a total of 40-plus channels. "There will be no shortage of resources to carry the content," says Markovic. "The question is what content." But as in Georgia, new broadcasters have yet to emerge. Demand for channels is sufficiently low, in fact, that the country's first digital network operator is putting just four transmitters at each site, though its license allows six.

More typically, the transition proceeds without significant input from aid agencies or local civil society. That's the experience in Nigeria, a country of about 40 million TV households.

"It's not a very popular topic," says Gbenga Sesan, executive director of the NGO Paradigm Initiative Nigeria. In February, his group hosted a 20-person roundtable in Lagos with the Association for Progressive Communications in a bid to raise local awareness of this issue.

Nigerian regulators talk of digital broadcasting bringing a new era of diversity of access. And the country does seem set to get a new TV channel, operated by the AIM Group, diversifying from its current radio business. But it's unclear if it's the switch to digital broadcasting that is making that possible. AIM had earlier received an analog TV license that it hadn't yet used. But it does expect to enjoy lower costs than it would have with analog.

Its signal will be carried by the country's first multiplex, operated by a partnership of Nigeria's state broadcaster and the Chinese company StarTimes. Private broadcasters, meanwhile, are talking of building their own multiplex. This is a common concern among commercial TV companies. Whether for political or business reasons, people there are often reluctant to rely on a government-owned and operated multiplex.

Those concerns sometimes lead private broadcasters to sue. Kenya's transition, for instance, has been slowed by legal challenges to a multiplex deal similar to Nigeria's, a partnership of state TV and StarTimes. But in late 2014, the Kenyan government announced a deal by which the transition would proceed and incumbent private broadcasters would be licensed to create their own multiplex.

Moreover, officials said, eight groups had applied for rights to put new channels on the air using leased space on multiplexes. It remains to be seen, however, how many will make it to the air and what impact they will have on broadcast diversity. One of the applicants is Cosmopolitan Media, an affiliate of the international Cosmopolitan magazines. Its Kenyan print version is a business partner of Nation Media Group, which owns one of Kenya's largest private broadcasters, NTV.

Status of Transition to Digital Terrestrial Television Broadcasting

Completed   Ongoing   Not Started   Not Reported   No Data Available
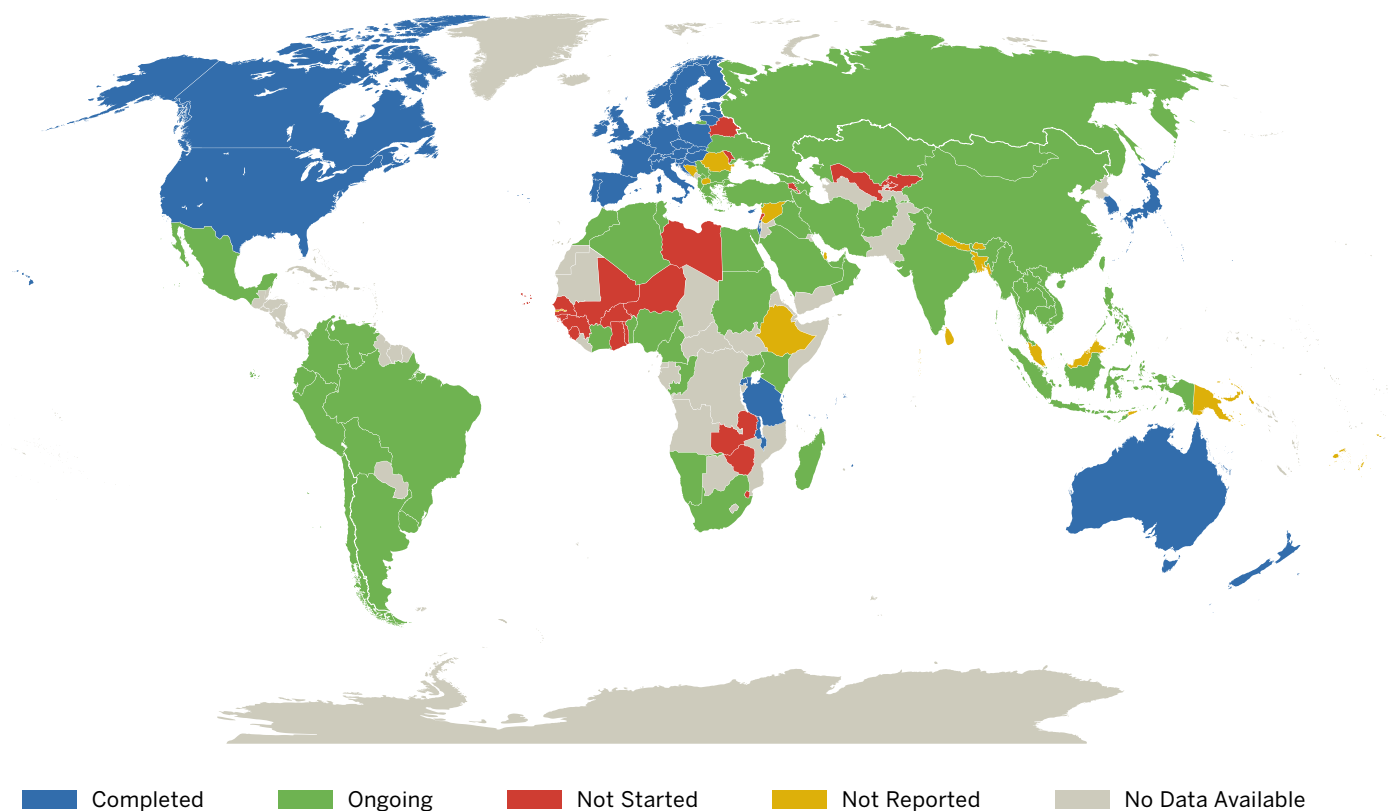
Note: This map represents a snapshot in time, as the global conversion to digital broadcasting is a continuing process.

SOURCES: *http://www.itu.int/en/ITU-D/Spectrum-Broadcasting/Pages/DSO/Summary.aspx;* the Open Society Foundations' Mapping Digital Media project *(http://www.opensocietyfoundations.org/projects/mapping-digital-media)*, news reports, and government websites.

The most spirited input concerning digital comes from small, often financially wobbly stations that have managed to get on the air with analog licenses. For them the goal may be as much to preserve their presence as to bring in new voices.

South Africa, meanwhile, had originally planned to be among Africa's very first countries into the digital era with a 2011 completion date. For now, analog TV continues to rule, due to lawsuits, government personnel changes, and disputes over TV equipment manufacturing rights.

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The Independent Broadcasters Association of Ukraine, for instance, has fought for years to assure that the country's smaller television voices are not drowned out by state TV and big commercial stations when things go digital. The same has happened in Kosovo, where the Association of Independent Broadcast Media has been speaking up for the patchwork of small TV stations that came into existence after Kosovo broke away from Serbia in 1999.

Ardita Zejnullahu, the group's executive director, worries that many of these stations will have trouble coming up with what she calls a typical bill of $650,000 to pay for the switchover. Some stations, she worries, could go off the air as a result. In the meantime, her group is lobbying to influence the government's draft digital strategy document. Among her goals are nailing down oversight provisions for multiplex operators, guaranteeing channel placements for her member stations, and securing European Union financial aid to stations making the transition.

In Kosovo new voices have yet to appear. "As regards to the legal framework, there is nothing in place, so people cannot apply," explains Zejnullahu.

A Complicated Process

By making more efficient use of broadcast spectrum, digital TV can create extra, lower-cost channels. Ideally, that can mean a richer mix of news, opinion, and entertainment for the many hundreds of millions of people who lack cable, satellite or Internet links and continue to rely on TV pulled off the airwaves. Digital TV can also include interactive services.

The shift is largely complete in the industrial countries, but in the developing world is typically in the early or intermediate stages. Governments and powerful incumbent broadcasters often control the process by default, manipulating it to their own political and business ends.

The switch is often seen as just a technical question of replacing one kind of TV signal with another. But Pham Nhu Hai, the top transition official at the UN's International Telecommunication Union, says it's "more a strategic question—what sort of content do we want to provide to the people, how is that content delivered?... It's about changing the whole industry." He hopes that more civil society groups will get involved.

The transition requires years of preparation, as regulators choose from rival technical standards and assign frequencies for new channels. How many will go to state TV, how many to private? Which will be free and which will require subscription payments? These and myriad other questions must be answered. Competing demands for airwave space from mobile communications companies and decisions about what type of wireless services to offer can further complicate the process.

Broadcasters, meanwhile, must buy and install new equipment and retrain personnel. Moreover, the switch often upends business models that have been used since the dawn of TV. Analog broadcasters are typically self-contained with their own studios, towers, and transmitters. In the digital world, the business is often cut in two: content companies create programming and then lease channels on separately owned multiplexes. Theoretically, this can make it easier for groups with low funding to get on the air. They don't have to buy their own tower and transmitter. Rather, they lease a channel.

1.4 billion households worldwide have access to television.

The final challenge is the analog switch-off. The TV viewing public typically pays little attention early on in the transition, but the reaction is often anger and resentment when people learn that their current sets are about to become obsolete. That was the reaction in Ivory Coast recently on news that import of analog sets was being banned. Governments often subsidize the cost of digital converter boxes for old TVs so that low-income people don't get blacked out.

A Challenge for Media Development

Multilateral communications organizations such as the ITU and the European Broadcasting Union are helping with technical advice. Also involved are a scattering of international media development agencies that view the transition as a crucial turning point for media freedom. "We want more voices on the air, we want fairness in how we allocate spectrum and frequencies, we want openness in the process," says Marius Dragomir of OSF, which has done extensive work on digital TV.

Other groups include the Association for Progressive Communications, which has conducted field research and education; Internews and Albany Associates, which have offered expert advice on the ground in developing countries; and the International Center for Journalists, which has helped in public education for the final rollout of the new technology. The Organization for Security and Co-operation in Europe gets involved by helping shape national plans for the transition.

Digital TV figured prominently in 56 country studies carried out under OSF's Mapping Digital Media initiative.. But according to Dragomir, a frequent challenge was to find local civil society partners engaged in the issue. Groups that did want a say often stumbled when faced with the fine points of spectrum allocation and transmission equipment performance. "They could not become part of the discussions or the debates with policy makers simply because they didn't have the tools and instruments to be part of this debate," says Dragomir.

There is no true deadline for completing the conversion, just a series of target dates adopted by different groups of countries. Many opted for June 17, 2015; some countries in Africa and the Middle East are aiming for 2020. Those that miss their dates will not be fined or otherwise

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"Media development organizations can get in there and help to bring in civil society so that local broadcasters, small broadcasters, independent broadcasters, won't lose out," says Doug Griffin of Albany Associates. Yet he feels there's often a reluctance. Agencies may lack the technical expertise and shy away from unfamiliar functions such as working with regulators as opposed to just broadcasters.

There's also a basic question of numbers: globally, broadcast TV is a declining medium in the face of gains by cable, satellite and broadband Internet.

This can be true in developing countries as well as wealthy ones. In the tiny Caribbean nation of Saint Lucia, for instance, only about 2 percent of the 170,000 citizens still rely on over-the-air TV, according to Alden St. Clair of the country's National Telecommunications Regulatory Commission. Given that tiny audience, he says, it's unlikely that Saint Lucia's three broadcast stations will switch over at all.

With cellphones fast proliferating even in the world's poorest countries, many governments have moved to reassign certain TV frequencies to mobile communications. Proposals to convert another batch will be an important question at the 2015 World Radiocommunication Conference, the giant forum at which countries negotiate global spectrum rules, says the ITU's Pham Nhu Hai.

Whether accessed wirelessly or by a cable, the Internet can offer the same access to information and programming that TV does. "Wherever there is good broadband coverage and relevant online content, people have switched en masse," says Michael Jensen, Internet access specialist for the Association for Progressive Communications. He wonders if $100 million spent on helping low-income households obtain set top boxes for old TVs might be better used in making broadband more accessible.

Dragomir hopes that the Mapping Digital Media project will build awareness and expertise on digital TV that will allow proper participation by civil society and a fair process. But, noting limited resources, he sees OSF dialing down its involvement in this issue. "We won't be able to work in 60 countries, or 80," he says. "We'll have to focus." Future work might center on issues of ownership and policy that are directly related to journalism in countries where OSF believes its intervention can tip the balance.

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