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# Governing global information and communications policy: Emergent regime formation and the impact on Africa<sup>☆</sup>

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## Abstract

This paper combines a theoretical perspective on globalization and the information society with a critical usage of international regime theory in order to better understand the current historical period of transition from an international telecommunications regime (Cowhey Int. Organiz. 45 (1990) 169) to a new and complex regime aimed at providing governance for the Global Information Infrastructure and Global Information Society (GII/GIS). The paper employs a case-study approach to explore some of the specific national responses (i.e. South Africa) to this regime transition, with an analysis of potential best practices and lessons learned for other emerging economies.

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## 1. Introduction

For more than three decades, international relations scholars have grappled with the question of how global governance and cooperation can occur in a world-system comprised of “sovereign and equal” national states, and in the absence of a global government to make and enforce rules. This question, sometimes called the “anarchy problematique”, focuses on the evolution of cooperation at national, regional and global levels (see, *inter alia*, Keohane & Nye, 1989; Krasner, 1983; Keohane, 1984; Axelrod, 1985). International regime theory has been one of the most

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resilient mental models for addressing this problem, and has been formulated from a wide variety of epistemological and scholarly traditions.

In 1983, Stephen Krasner attempted to build a consensus around the theoretical and applied approaches to international regime theory in a special issue of the journal *International Organization*. Here, Krasner (1983) and his colleagues defined regimes as “sets of implicit or explicit principles, norms, rules and decision-making procedures around which actors’ expectations converge in a given area of international relations”. *Principles* are seen as beliefs of fact, causation or rectitude; *Norms* are seen as standards of behavior defined in terms of rights and obligations; *Rules* are specific prescriptions or proscriptions for action; and *Decision-Making Procedures* are the prevailing practices for making and implementing collective choice (Krasner, 1983). More directly, international regimes are the “rules of the game” for a specific issue area within the world-system and the mechanisms for collective decision-making and enforcement of those rules.

Further, Rittberger (1995) argues that international regime theory, while once thought to be a “passing fad”, has maintained exceptional stability and integrative capabilities within the discipline of international relations, and included the insights from international political economy, security experts, comparative politics, and other areas in world affairs. He asserts that regime theory has become an increasingly important intellectual tool in European scholarly circles, especially in Germany and Scandinavia, and attempts in his work to “enhance integration and communication” amongst scholars of international regimes (Rittberger, 1995).

Over these several decades, scholars around the world have documented the emergence and efficacy of International regimes in a wide variety of issue areas within the world-system, including: (1) international shipping; (2) international air transport; (3) international post; (4) international atomic energy and weapons; (5) international environmental issues; (6) the global “commons” (e.g., the high seas and outer space); and (7) even for commodities (e.g. diamonds) (Zacher & Sutton, 1997). However, one of the oldest and most successful international regimes has been the international telecommunications regime (Cowhey, 1990).

The highly successful international telecommunications regime (ITR) (Cowhey, 1990; Freiden, 1996) is based on the International Telecommunication Union (ITU), an epistemological community that supported a natural monopoly for telecommunications, the “clubby” and “cartelized” relationships between ministries and officials of monopoly Post, Telegraph and Telephone (PTT) enterprises, ITU officials (many of whom are former PTT officials themselves), and a limited number of upstream suppliers to the PTT in the national capitals. So successful was this regime, that it emerged before international regime theory was in vogue and has been largely unchallenged until recent times.

## 2. The problem

However, as the historical processes of globalization and an information age continue to unfold and the demands of global electronic commerce continue to expand, the international telecommunications regime is facing tremendous transformative pressures. A wide range of social, political, economic, cultural, and technological factors are challenging this regime and pressing for the emergence of a new one, seen as the Global Information Infrastructure/Global

Information Society regime (GII/GIS). However, what will be the nature of this new regime? Two distinct possibilities exist. One possibility is that a very broad regime could emerge representing a plethora of diverse societal stakeholders and actors and exploiting the applications and services of the Information Society. However, another possibility, perhaps a more likely one, is that corporate-oriented interests may dominate the emergent regime formation process and skew its development away from these broad societal perspectives, to a more narrow regime focused on global electronic commerce.

### 3. Research questions

How will this regime formation process conclude, what kind of regime will emerge? What will be the “principles, values, and norms”, of this new regime, and what stakeholder interests will be represented by them? What will be the rules of this new regime, and how will they be decided upon and enforced? What societal interests will win and which will lose in this emerging regime? How are developing countries, particularly South Africa and other countries in Africa, responding to the opportunities and challenges of this regime? And, what can be done to influence the direction of this regime to ensure the development of a more just, and equitable Global Information Society? These are the research questions that this paper seeks to address.

### 4. Theoretical framework

There are three dominant schools in international regime theory: (1) *liberal/neo-liberal*; (2) *realist/neo-realists and Marxist/neo-Marxist*; and what might be called (3) *postmodernist*. In the liberal/neo-liberal school, there is a focus on the importance of functions. Theorists working in this school, focus on the impact that international regimes have in the creation of peace and in reducing transaction costs. These scholars argue that while regime actors have self-interests, they are able to see the possibility of creating a global environment where the majority of good can be created for the majority of actors through cooperation. In this approach, no single actor would get the exact regime that it wants, but that through interdependent cooperation it can achieve enough of its aims, while allowing other actors to achieve a sufficient amount of its aims. This approach is designed to create an international regime based on peace and stability.

Those theorists working within the realist/neo-realist and Marxist/neo-Marxist schools tend to focus on the importance of power in the formation and maintenance of international regimes. These global power dynamics can take the form of hegemonic states against weaker ones, or of a global power-wielding corporate elite against the unorganized global working class.

Finally, there is a school of regime theory that might be considered post-modernist. Theorists working in this tradition focus on the formation of cognitive frameworks and the ability to set global agendas through the use of media and other tools. These scholars see the regime formation dynamics as based on what forces can influence the acceptable forms of problem definition and solution. The collection of these forces forms what may be called the “epistemic community” for the particular issue area of international affairs. This epistemic community helps to create an

“accepted” belief system and shapes the on-going development of norms, rules, and values in this area.

While international regime theory provides a very useful theoretical framework to help us understand this period of rapid transformation, there are some problems with its use. In some cases, those that have used regime theory, have approached the state as a unitary actor, and ignored domestic contestation to the regime formation processes. Also, in most cases, there is a very heavy focus on state actors, at national, regional and global levels. This focus ignores the increasingly important role played by non-state actors, at each of these levels, particularly by global non-governmental organizations representing the interest of the private sector. Also, there are often insufficient linkages between the processes of global economic restructuring and its influence on domestic actors and political-economic processes. Finally, there is often insufficient attention paid to the factors that affect “state autonomy”, or the ability of the state to exercise *de facto* sovereignty.

This study adopts the [Krasner \(1983\)](#) approach to international regimes. This causes us to look at the issues of regime transformation, and the emergence of consensus in four critical areas: (1) principles and values; (2) norms; (3) rules; and (4) enforcement mechanisms. However, using regime theory, the paper will also focus on the impact of non-state actors in the regime formation process.

## 5. Methodology and data

The methodology adopted in this study is qualitative in nature and uses a theory-driven case-study approach. After defining the terms, theoretical framework and research questions, all of which are grounded in the extant literature, multiple qualitative data collection techniques were employed, including: (1) participant-observation; (2) observer-observation; (3) in-depth interviews; and (4) content analysis of primary and secondary sources. Data collection was focused primarily on developing a dense-narrative case study of the impact of regime transformation on an emerging economy. The case selected for analysis was the Republic of South Africa. South Africa was chosen for a number of reasons, including that: (1) in 1996 it implemented a fairly wide-ranging restructuring of its telecommunications sector (see, *inter alia*, [Cogburn, 1998](#)); (2) it was a founding member of the World Trade Organization; (3) it plays a strong political and economic leadership role in the African region, and within the broader developing country context; (4) it participated in, and made an acceptable offer to the WTO Agreement on Basic Telecommunications; (5) it has developed a merged telecommunications and broadcasting independent regulatory body; (6) it is currently in the process of a Green/White Paper process to develop an electronic commerce policy; and finally (7) there has been significant activity from non-state actors in South Africa, at both the national, regional, and global levels.

## 6. Limitations of the study

Several factors limit the success of this study. The primary factor has been time. The qualitative data collection has yielded a tremendous amount of data and there has been insufficient time for a

thorough analysis. Thus, all of the findings and conclusions here should be examined with caution. A second limiting factor in the study is generalizability. The qualitative paradigm in which this study operates suggests that the primary purpose is not necessarily to generalize the findings from this study to other countries in Africa, or other emerging regions. However, there is a desire to draw some broader conclusions about the emergence of a new GII/GIS regime, and its implications. Unfortunately, the degree to which this can be achieved from a limited case-study, may be slight.

## 7. Findings and discussion

### 7.1. *The emerging GII/GIS regime and its principles, values, and norms*

As evidence of an emerging GII/GIS regime, the theoretical framework suggests a search for the development of a global consensus on the principles, values, and norms of this important area of international affairs. If a new regime does emerge in this area, it will be based on the foundation of one of the oldest and most successful international regimes in history, the international telecommunications regime (Cowhey, 1990). This regime was based primarily on a specialized agency of the United Nations, the International Telecommunication Union (ITU). However, due to various social, political, economic, and technological factors, this regime is being eroded and a new regime is emerging. The international telecommunications regime was highly suited for the industrial economy. However, a new regime that meets the requirements of the knowledge economy and a global information society is necessary. Table 1 presents a comparison of key aspects of the “old” international telecommunications regime and the “emerging” GII/GIS regime.

While many of the ideas of an Information Society have been around for some time, a global consensus is beginning to emerge around the norms, principles and values of this regime. Many of these norms, principles and values are being reflected in the development of a global information and communications policy. Several forces are influencing the emergence of these principles. Some of the most influential of these forces are high-level international conferences organized by international organizations, national governments, and other institutions. In 1995, the European Commission organized the first G7 Ministerial Meeting on the Information Society in Brussels, Belgium.

Out of this conference emerged eight key organizing principals for the Information Society known as the “Brussels Principles”. In order to extend these Brussels Principles to a broader grouping of countries, the European Commission and the South African Government organized the G8/Developing World Information Society and Development (ISAD) Conference, held in 1996 in Johannesburg, South Africa. These principles became known as the “ISAD Principles”.

When examining these emerging principles, a number of common themes emerge. First, the importance of the role of the private sector in stimulating dynamic competition and attracting the private sector to invest in the infrastructure and applications for the Information Society, and an attempt to move towards universal service. Second, using a strategic policy approach to stimulate the development of an Information Society, with an appropriate legal and regulatory framework. A third principal is that of working to stimulate the creation of content that is relevant to and

Table 1  
Comparison of the international telecom and GII/GIS regimes

International telecommunications regime	GII/GIS regime
Limited Competition	High Competition
Single Issue	Multiple Issue
Single Ministry	Multiple Ministries
Single Industry	Multiple Industries
Limited Number of Stakeholders	Multiple Stakeholders
Narrow Epistemic Community	Wide Epistemic Community

reflective of many of the world's countries, cultures and languages. A final common principal emerging out of these important conferences is the idea of using the potential of an Information Society to stimulate employment creation. Table 2 presents the GII/GIS principles that emerged out of the G7 Brussels Ministerial meeting, which were revised further by the ISAD Conference.

These principles reflect the broad potential envisioned by the Global Information Infrastructure and Global Information Society. A regime that would support the development of such an Information Society would be driven by a wide range of applications and services, designed to benefit the majority of the world's citizens. Table 3 illustrates some of the applications made possible by an Information Society. Numerous organizations and countries have attempted to develop global information and communications policies in such a way that would promote the development of this broad vision of an Information Society.

As stated above, a range of social, political, economic, cultural and technological factors are eroding the existing telecommunications regime and a new regime is emerging, the contours of which are still being debated. If the broad vision of a new GII/GIS regime emerges it would enhance the quality of life of a large number of the world's citizens and would have to reflect the interests of a diverse group of stakeholders. However, in many ways, the wide-ranging potential of an Information Society is being unfulfilled and a global consensus is emerging around a narrower group of regime norms, principles and values designed to support one important Information Society application—electronic commerce.

One driver of this consensus is the high level of focus on the potential of global electronic commerce (e-commerce) to meet the employment creation demands and economic development objectives of developing countries. Another driver is the fact that creating an environment for the successful development of e-commerce is critical to the commercial interests of global and multinational corporations.

Some of these key norms, principles, and values include the following: (1) *telecommunications and information infrastructure*—the emerging principle focuses on the importance of liberalization, privatization and a pro-competitive telecommunications environment; (2) *customs/taxation*—that principle that the Internet and e-commerce should continue to be a “tax free” zone; (3) *electronic payments*—the emerging principle that multiple and competing options for e-payments should continue to be developed, and that these systems should be interoperable, and should allow for both anonymous, pseudonymous, and traceable methods; (4) *commercial code*—that a common global commercial code should emerge to provide for the global rule of law and protection for contracts and private property; (5) *intellectual property protection*—that IPR regulation needs to

Table 2  
Principles for a Global Information Society

G7 Brussels Principles for the Information Society	G8/Developing World Principles for the Global Information Society
Promoting dynamic competition	Universal service
Encouraging private investment	Clear regulatory framework
Defining an adaptable regulatory framework	Employment creation
Providing open access to networks	Global co-operation and competitiveness
<i>While</i>	Diversity of applications and content
	Diversity of language and culture
Ensuring universal provision of an access to services	Co-operation in technology
Promoting equality of opportunity to the citizen	Private investment and competition
Promoting diversity of content, and	Protection of intellectual property rights
Recognizing the necessity of worldwide co-operation	Privacy and data security
	Narrowing the infrastructure gap
	Co-operation in research and technological development

be revised to reflect the realities of the digital economy, while still providing an incentive for the production of information goods; (6) *domain names*—that domain names are an important and contested commercial asset, and famous marks should be protected while not allowing them to abuse smaller enterprises, and that ICANN is the legitimate body charged with the responsibility to deal with domain name issues; (7) *personal data*—should be protected, while at the same time allowing for legitimate corporate uses of data profiling and targeted advertising; (8) security and encryption—is an important national and personal security concern that has to be balanced with personal privacy concerns; (9) *awareness/trust*—is a limiting factor for the growth of e-commerce; (10) *trust*—might be enhanced with the widespread use of authentication and digital signatures; (11) *technical standards*—should be technology neutral and industry driven to the fullest extent possible; (12) *local content*—should be promoted and protected, if e-commerce is going to reach its full potential; (13) *labor and society*—will be affected by the move towards a digital economy and society should work to minimize the negative impact, while harnessing the potential; (14) *universal service/access*—or lack thereof, as characterized by the “digital divide” is one of the most potentially limiting factors for global e-commerce, and finally (15) *human resources and capacity*—require immediate global attention.

Although significant tensions exist in some of these areas, as a whole, there is a very strong global consensus emerging for the norms, principles and values of a new GII/GIS regime. However, in addition to these components, an effective regime must have strong decision-making and enforcement mechanisms.

### 7.2. Decision-making, rules and enforcement of a new GII/GIS regime

If it is agreed that the old regime is being transformed, and a new regime is emerging, what are the rules of this emerging regime and what international body will enforce these rules? There is little doubt that the centerpiece organization of a new GII/GIS regime will be the World Trade Organization. However, unlike the international telecommunications regime that was based

Table 3  
Information society applications

General application	Specific examples
Education, Research and Training	Distance-Education Collaboratories Asynchronous training
Digital Libraries	Library of Congress UMDL IPL J-Stor
Electronic Museums and Galleries	Louvre
Environment Management	GIS applications
Emergency Management	EMS
SMMEs, Employment Creation and e-Commerce	PeopLink African Crafts Market
Maritime Information	Early warning systems
Electronic Government Services	E-passports Sharing and re-use of records
Debt Management and financial services	Debt management systems Electronic bill payment
Tourism	Hotel and package booking Promotion and data mining
Health Care	Tele-medicine Health Education and Information
Legislation and Legal Services	Parliament information systems Legal database access
Transportation of People and Goods	Transportation system management
Business Development and Trade Efficiency	Trade promotion B-2-B e-commerce
Universal Access	Community Information Centers Public Internet Terminals
National Systems of Innovation	Collaboratories Geographically distributed research teams
Entertainment and Leisure	On-line gaming Adult Oriented material

primarily on a single intergovernmental organization, the ITU, the emerging regime will rely on a host of governmental and non-governmental organizations to enforce its rules. Thus, in addition to the WTO, the ten most important organizations for the “governance” of this emerging regime include the: (1) World Intellectual Property Organization; (2) Organization for Economic Cooperation and Development; (3) Internet Corporation for Assigned Names and Numbers; (4) Global Information Infrastructure Commission/Global Business Dialogue; (5) Group of 8 Industrialized Countries; (6) World Economic Forum; (7) World Bank Group; (8) European Commission; (9) International Telecommunication Union; and (10) Bi-lateral aid agencies. [Table 4](#) illustrates several aspects of these organizations, including their organizational type and primary function within the regime. These organizations will work together formally, and informally to formulate rules and to make decisions for the new GII/GIS regime. They will also seek to enforce

Table 4  
GII/GIS Regime enforcement organizations

Organization	Organization type	Regime component(s)
WTO	Inter-Governmental (Global)	Principles, Values, Norms, Rules, <i>Enforcement</i>
WIPO	Inter-Governmental (Global)	Principles, Values, Norms, Rules, <i>Enforcement</i>
OECD	Inter-Governmental (Regional)	Principles, Values, Norms
ICANN	Global Non-Governmental	Principles, Values, Norms, Rules, <i>Enforcement</i>
GIIC/GBD	Global Non-Governmental	Principles, Values, Norms
G8	Inter-Governmental	Principles, Values, Norms
WEF	Global Non-Governmental	Principles, Values, Norms
World Bank Group	Inter-Governmental (Global)	Principles, Values, Norms, Rules, <i>Enforcement</i>
European Commission	Inter-Governmental (Regional)	Principles, Values, Norms
ITU	Inter-Governmental (Global)	Principles, Values, Norms
Bi-Lateral Aid Agencies	Governmental	Principles, Values, Norms, Rules, <i>Enforcement</i>

them. To illustrate this point, take the example of South Africa, as it attempts to develop its new e-commerce policy.

### 7.3. South African responses to the emergent GII/GIS regime

As this new GII/GIS regime emerges, who wins and who loses, and how are developing countries, particularly South Africa and others in Africa, responding to its opportunities and challenges? Global e-commerce is being driven in many ways by the leadership of the private sector. However, there are very important information policy issues that will facilitate its optimal growth, both within South Africa and around the world. This reality presents a fascinating and challenging paradox. While the scope of electronic commerce is clearly global, national regulation continues to provide the legal and regulatory basis for its operation. Table 4 presents an overview of the major regime formation and enforcement organizations.

The South African government has taken these responsibilities very seriously. As a major response, the Department of Communications launched an important national Green/White paper process on electronic commerce that was designed to lead to specific national legislation by the 3rd or 4th quarter of 2001 (South African Department of Communications [SADoC], 2000). This legislative process was designed to build on the progress already made in restructuring telecommunications policy, both in 1996, and again in 2001.

The process of developing and conducting these information and communications policies has been highly consultative. The government has tried to include the voices of as many relevant stakeholders as possible (Groenewald & Lehlokoe, 1991). This section will briefly examine the policy perspectives that are emerging in South Africa's movement towards an e-commerce regime. The primary data source for this section is the national Green Paper on Electronic Commerce, the

background papers commissioned by the Department of Communications, the papers of the working groups, other published government documents, academic literature, and news accounts.

Of significant interest for the analysis, is the fact that the Green Paper makes constant reference to the need to harmonize its emerging national e-commerce regime with the growing global consensus and in line with its extant commitments to the World Trade Organization. “In embarking on a national policy development initiative on e-commerce it is imperative that SA take cognizance of its WTO commitments, firstly, to ensure that such policy is compatible with the relevant WTO rules and regulations, and secondly, to determine the impact of e-commerce on those commitments” (SADoC, 2000, p. 48).

The WTO has worked to review the impact of e-commerce on its structure and planning. At its last Ministerial Meeting, held in Seattle, Washington, the US and other developed countries, wanted to explore the possibilities of a more comprehensive involvement for the WTO in e-commerce issues. “In the Seattle Ministerial Conference, South Africa, together with the Southern African Development Community (SADC), supported the extension of the moratorium until the next Ministerial Conference when it would be reviewed” (SADoC, 2000, p. 49). The current policy perspective recognizes that “any regulatory regime that South Africa adopts must be consistent and compatible with international frameworks” (SADoC, 2000, p. 18).

### 7.3.1. *General principles on electronic commerce*

Consensus on general principles around issues of international import are a key indicator of the emergence of a new regime. In terms of the e-commerce policy formulation process, South Africa’s approach is based on eight key principles, which are: (1) quality of life; (2) international benchmarking; (3) consultative process; (4) flexibility; (5) technology neutrality; (6) supporting private-sector led and technology-based solutions and initiatives; (7) establishing and supporting public-private partnerships, and supporting small, medium and micro-sized enterprises (SADoC, 2000, p. 18).

In terms of the substantive principles, South Africa believes the following: (1) the recognition that there is a need for legislation to support the national implementation of e-commerce transactions, within a framework of international standards; (2) that commercial transactions should be able to be effected through both paper and electronic means, without creating uncertainty about the latter; (3) promoting a framework that increases the efficiency of South African commercial transactions, without being overly cumbersome; (4) the framework should be technology neutral; (5) to develop a uniform commercial framework that conforms to international standards; (6) that South Africa should build on the work of others and not reinvent the wheel; and that (7) South Africa should strive to maintain its sovereignty and independence, and meet its strategic national socioeconomic development objectives (SADoC, 2000).

### 7.3.2. *Telecommunications and information infrastructure*

Without increased access to information and communications infrastructure, e-commerce will not be able to meet its full potential (SADoC, 2000). Since the restructuring of the telecommunications sector in South Africa in 1996, there have been a number of information infrastructure initiatives in the country (Cogburn, 1998). The Department of Communications (DoC) has been at the forefront of this effort, particularly with its *Info. Com 2025 Strategy*, Public

Information Terminals, Public Key Infrastructure Pilot, and numerous other e-commerce and e-government initiatives. As these infrastructure initiatives unfold, the strategy should be to develop an infrastructure that is capable of handling a wide variety of applications and services. From the South African policy perspective, “the challenge confronting South Africa is to create an ideal market structure for e-commerce that will stimulate and modernise network development and infrastructure; accelerate universal access; support affordable access; encourage investment and innovation” (SADoC, 2000, p. 82). There is a realization in the Green Paper that the infrastructure for e-commerce will consist of a range of networks, including “backbone networks, end-user equipment and access services”.

The success of e-commerce will depend on the available of speedy access infrastructure; high quality of service within the backbone networks; and affordable prices. Access will not only be through fixed networks (terrestrial, wireline and cable TV) but also through wireless networks (cellular, satellite, and digital broadcast spectrum) (SADoC, 2000, p. 83).

Perhaps one of the most important emerging regime principles is the importance of liberalization, privatization and a pro-competitive environment for telecommunications and information infrastructure. South Africa is proudly a founding member of the World Trade Organization (WTO), and has been working actively to promote the multilateral trading system (Manuel, 2000).

At the moment, Telkom, the commercialized Public Telecommunications Operator (PTO) has a monopoly on the provision of basic fixed telephony services. While the government chose to adopt a strategic equity partnership (SBC and Telkom Malaysia) for Telkom, the Green Paper recognizes that “Telkom’s efforts alone are not sufficient to achieve all of the infrastructure needs for e-commerce [in South Africa]” (SADoC, 2000, p. 85). As such, South Africa submitted an accepted offer in the WTO’s Agreement on Basic Telecommunications, and is now bound by the terms of that agreement to liberalize and privatize its telecommunications sector by 2002 (World Trade Organization [WTO], 1997). However, at present, South Africa has not yet signed the WTO Information Technology Agreement, which was designed to bring down tariffs on a wide range of information and communications technologies to zero by 2001.

### 7.3.3. *Universal service/access*

As stated above, there is a significant recognition that all of the potential benefits of global electronic commerce for South Africa will not be realized without sufficient attention to increased access to information and communications technologies for a wider portion of South African society. Often characterized as the “digital divide”, this disparity of access both within countries and between them is one of the most potentially limiting factors for global e-commerce.

In order to combat the digital divide and try to meet its universal service goals, the Department of Communications has promoted a number of public access initiatives such as the development of Multi-Purpose Community Information Centers (MPCICs), the Universal Service Agency (USA) and Public Information Terminals (PITs) to help South Africa provide access for larger numbers of its citizens and enjoy the benefits and opportunities of global electronic commerce.

### 7.3.4. *Customs/Taxation*

South Africa recognizes that the transition to a digital economy engenders new ways of doing business, and new products and services. Many of these products and services are presenting

tremendous challenges to the taxation regimes of governments around the world. “There is a legitimate concern by certain governments that the development of the Internet may have the effect of shrinking the tax base and hence reducing fiscal revenue” (SADoC, 2000, p. 36). In addition, South Africa recognizes that there are significant difficulties in defining jurisdiction in electronic commerce, and to administer and enforce any kind of taxation scheme.

The South African Revenue Service (SARS) believes that the global consensus that is emerging around taxation principles, being led by the Organization for Economic Cooperation and Development (OECD), does not conflict with its views. The important basic principles of this emerging regime are: (1) neutrality; (2) efficiency; (3) certainty and simplicity; and (4) flexibility. Of particular interest, there is apparently no opposition in the South African approach to the idea of “no need for a special new tax such as a “flat rate” or a “bit” tax, and that the Internet and e-commerce should continue to be a “tax free” zone (SADoC, 2000, p. 37).

However, South Africa wants to promote the idea of “indirect taxes”, being at the place of consumption. “Indirect taxes should apply where consumption takes place, and an international consensus should be sought on the identification of the place of consumption. Consensus is important to avoid double taxation or unintentional non-taxation” (SADoC, 2000, p. 40).

There is concern in South Africa that the development of electronic money that is “unaccounted”, and “network” or “outside” money, will lead to additional challenges in terms of tax monitoring, collection and enforcement. However, it believes that there is significant cultural conservatism that will limit the impact of these new forms of money. In order to promote compliance, South Africa believes that it should require that certain information should be a part of South African e-commerce.

The following information should be furnished on any commercial website owned by a South African resident, company, close corporation or trust: trading name of the business; the physical as well as the postal address for the business; and e-mail address; telephone or other contact information and statutory registration number in respect of companies; close corporations and trusts (SADoC, 2000, p. 44).

The emerging tax perspective recognizes that there are additional complications that reduce storage and transmission costs, and that storing information overseas is becoming easier and cheaper. As a result, South Africa believes that there is the need for a “greater degree of international co-operation in revenue collection than currently exists” (SADoC, 2000, p. 45). It appears that South Africa supports the role of the OECD, as a leader for this aspect of the regime, especially with its Model Tax conventions.

#### 7.3.5. *Electronic payment systems*

The emerging policy perspective in South Africa is that multiple options should continue to emerge (both inside and outside money) that are interoperable and could allow for anonymous, pseudonymous, and traceable methods. There is particular concern about the “threat of cybercash” and the impact of unaccounted money on the South African economy (both in the form of network-based money and stored value cards). Both of these methods have the potential to exchange value without identifying the user and without linking to specific bank accounts (SADoC, 2000, p. 99). South Africa sees this as a “make-or-break” issue for electronic commerce

in South Africa. Another major challenge for South Africa, given its history of racial oppression and segregation, is the ability for the “unbanked” have access to electronic payment systems.

South Africa has a well-developed financial system, and the South African Reserve Bank (SARB) has taken the lead on these e-payment issues. In 1998, it developed the South African Multiple Option Settlement (SAMOS) system that allows real-time settlement between banks. The SARB has also published a position paper on e-money in April 1999. The Reserve Bank is pushing hard for the principle that “only banks would be allowed to issue electronic money”, although there is the recognition that “the issuance of electronic money may fall outside the definition of [the] ‘business of a bank’, as defined in the Banks Act 94 of 1990 (SADoC, 2000, p. 102). The goal is to protect users, who the Reserve Bank feels may find themselves “unprotected”, in the event that the issuers of electronic money remain unregulated. The Reserve Bank feels strongly that “primary and intermediary issuers of electronic value will therefore be subject to regulation and supervision by the South African Reserve Bank” (SADoC, 2000, p. 102).

#### 7.3.6. *Global commercial code*

South Africa recognizes that global electronic commerce is posing a challenge to its national legal systems that support commercial transactions. The current legal framework in South Africa, like in most countries, was developed for an era of paper-based commerce, and thus contains words such as: “document”, “writing”, “signature”, “original”, “copy”, “stamp”, “seal”, “register”, “file”, “deliver”, etc. (SADoC, 2000, p. 28). The South African Law Commission found that the Computer Evidence Act 57 of 1983 was insufficient to address the admissibility of “computer evidence” in civil proceedings, and this will have to be addressed in an emerging e-commerce regime.

Also important is the ability to determine the attribution of electronic documents. Given the existing law in South Africa, this issue has to be addressed.

However, in terms of the doctrine of ‘estoppel’ in South African law, a purported originator who never sent nor authorized a communication to be sent, may nevertheless be held bound in law if his negligent conduct, whether by action or commission, induced a reasonable belief of authenticity in the mind of the addressee, which caused the latter to act thereon to his/her peril (SADoC, 2000, p. 32).

Additionally, it is important to ascertain the time and place of an e-commerce contract, in order to determine whether or not South African courts have “jurisdiction to adjudicate a dispute involving both local and foreign nationals and, if so, which country’s laws our courts would apply” (SADoC, 2000, p. 32). How to effect a signature in cyberspace is another important issue for the South African policy environment. A framework for understanding electronic signatures (and the more specific subset “digital signatures”) must be put into place, and a common global commercial code should emerge to provide for the global rule of law and protection for contracts and private property. As the leading regime component in this area, South Africa strongly supports the United Nations Conference on International Trade Law (UNCITRAL) and its Model Law on Electronic Commerce.

### 7.3.7. Intellectual property protection

The South African policy approach recognizes that the transition to a digital economy presents new challenges for intellectual property protection. Digital goods can be copied and distributed around the world with relative ease, putting additional pressure on the system of intellectual property protection in South Africa, and countries around the world. Intellectual property regulation needs to be revised to reflect the realities of the digital economy, while still providing an incentive for the production of information goods, and thus balancing the needs of the individual with the needs of society.

“South African intellectual property law is not fully equipped to deal with the implications of the Internet, convergence, multimedia, digital technology and hence e-commerce. The advent of the Internet has changed the underlying assumptions of the original copyright laws entailed in the Copyrights Act 98 of 1978” (SADoC, 2000, p. 57). South Africa has already made an attempt to comply with the WTO’s Agreement on the Trade-Related Aspects of Intellectual Property (TRIPS) by amending its Intellectual Property Laws Amendment Act (Act 38 of 1997).

In order to try to help move forward the development of a global e-commerce regime, the World Intellectual Property Organization (WIPO) has developed its “digital agenda” to guide its work in this area over the course of the next two years. The South African Department of Trade and Industry (DTI) convened a consultative meeting in South Africa to discuss South Africa’s accession to these WIPO treaties and processes. “The majority of stakeholders cautioned that before acceding to them, South Africa should analyse the benefits which accrue to small and medium enterprises” (SADoC, 2000, p. 60).

### 7.3.8. Domain names

Currently, there are no direct linkages between domain names and trademark holders. This area, perhaps better than any other, highlights the significant contradictions that are at play in the development of global electronic commerce, in an environment of national-based legislation. As the South African *Green Paper* argues: “Trademarks are territorial in nature, i.e. their registration applies to a particular country or jurisdiction. There is a general discrepancy between the national scope of trademark and the international nature of electronic commerce, particularly since e-commerce is borderless and instantaneous in nature” (SADoC, 2000, p. 63).

South Africa recognizes that domain names are an important and contested commercial asset, and famous marks should be protected while not allowing them to abuse smaller enterprises. There is some concern that the Internet Corporation for Assigned Names and Numbers (ICANN) has not yet achieved complete legitimacy as the body charged with the responsibility to deal with domain name issues. South Africa is questioning whether or not it should support these structures, as well as structures such as AfriNIC, which has been formed to try to better represent the interests of Africa within ICANN (SADoC, 2000, p. 97).

South Africa does, however, support the role of WIPO in its dispute resolution activities. It also supports the idea that in an information economy, the so-called Country Code Top Level Domains (ccTLDs) should be managed by national governments as a national asset (SADoC, 2000, p. 94). The South African Department of Communications has proposed the creation of an Independent Domain Name Authority (DNA) to represent all relevant stakeholders (private sector, public sector, and civil society) and to manage the domain name issues for South Africa.

### 7.3.9. Personal data and consumer protection

In order to enhance trust in the digital economy, South Africa recognizes that personal data should be protected. The challenge is to what degree the South African policy perspective will allow for legitimate corporate uses of data mining and profiling, targeted advertising, and the use of other Customer Relationship Management (CRM) tools. As fundamental principles, South Africa believes that consumers should be protected against the following dangers:

- Unsolicited goods and communication;
- Illegal or harmful goods, services and content (e.g. pornographic material)
- Dangers resulting from the ease and convenience of buying on-line;
- Insufficient information about goods or about their supplier; since, the buyer is not in a position to physically examine the goods offered;
- The abundantly accessible nature of a website;
- The dangers of invasion of privacy;
- The risk of being deprived of protection through the unfamiliar, inadequate or conflicting law of a foreign country being applicable to the contract, and finally
- Cyber fraud (SADoC, 2000)

South Africa also recognizes that when moving into electronic commerce, suppliers also face new dangers, especially in exposing themselves to new liabilities. The South African policy process would like to ensure that South African digital enterprises are an attractive competitor in the cyber world. The Department of Communications sees this as “an opportunity [for South African businesses] to establish a reputation for sound e-commercial practices, not only locally or within the SADC but also worldwide” (SADoC, 2000, p. 78).

Of particular importance to South Africa is the impact that its privacy and consumer protection policies may have on its relationships with its trading partners, especially the European Union. The EU has a very stringent privacy policy driven by its data protection directive and its perspectives on consumer protection are heavily weighted in favor of the consumer, as opposed to the business-oriented perspectives that dominate privacy policy in the United States. There is a recommendation in the *Green Paper* that “a combined government and industry database be set up to enable South African businesses to establish practices in any EU member country from which they may acquire personal data, for example, to establish profiles of their customers in that country” (SADoC, 2000, p. 80).

### 7.3.10. Security, encryption and trust

South African believes that “security measures used in conventional commerce may not be adequate to provide trust in the electronic economy” (SADoC, 2000, p. 68). At the same time, it is important that national and personal security concerns are balanced with personal privacy concerns. Four key elements are seen as crucial to ensuring that transactions in the digital economy can take place securely. These elements are: (1) authentication; (2) confidentiality; (3) integrity; and (4) non-repudiation. From South Africa’s perspective, achieving this level of security for the digital economy “requires active partnership between government and the private sector” (SADoC, 2000, p. 66).

These technologies are seen as critical to promoting trust in the digital economy, amongst both consumers and producers. It appears that South Africa is comfortable with the leading role being

played by the Organization for Economic Cooperation and Development (OECD) in promoting a regime consensus in this area.

#### 7.3.11. *Awareness*

In South Africa, as in many other parts of the world, low levels of awareness about the potential benefits and opportunities in electronic commerce, is a limiting factor for its growth. South Africa is developing a strategy to promote these opportunities, both to consumers and amongst the SMME sector.

Central to this issue is educating the wider population about both the opportunities and potential, threats of e-commerce. Coupled with that is the need to popularize or publicise and e-commerce policy process so as to invite participation. The creation of awareness and other related initiatives by government and its partners from the academic and business sectors to promote technological development should be done on an integrated approach. We need to build a new e-community that can take effective advantage of the e-commerce opportunities (SADoC, 2000, p. 112).

Within the South African public, private and civil society sectors, there are many bodies working to promote this level of awareness. Within the government, the Department of Communications is playing a leading role. Numerous private sector enterprises and bodies such as the Electronic Commerce Association of South Africa (ECASA) and the African Connection are also contributing in this area. In the civil society, the University of the Watersrand's Learning, Information, Networks, and Knowledge (LINK) Center is engaged in promoting an enhanced intellectual understanding of these issues, and the Internet Society of South Africa is building technical and user awareness.

#### 7.3.12. *Technical standards*

The emerging South African perspective on technical standards is that they are of critical importance to the development and proper functioning of the Internet and global electronic commerce. "Standards are rules, and serve as a basis for comparison and a form of order. The major objective for standardization is to achieve interoperability between networks and services and ensure compatibility" (SADoC, 2000, p. 91).

"Standards are needed for long-term commercial success of the Internet since they can allow products, services and applications from different firms to work hand in hand. Standards encourage competition and reduce stress or uncertainty in the market place" (SADoC, 2000, p. 91). However, there is also a recognition that "Standards can also be employed as de-facto non-tariff trade barriers to 'lockout' non-indigenous business from a particular national market" (SADoC, 2000, p. 92).

While some policymakers in South Africa feel that formulating standards at a time "in which technology is developing rapidly may be counter productive at this stage of e-commerce" (SADoC, 2000, p. 92), there is the recognition that these standards should be technology neutral and industry driven to the fullest extent possible. South Africa supports the international organizations playing the leading role in developing this component of the global e-commerce regime, especially the role of the International Standards Organization (ISO) and the International Telecommunication Union (ITU) (SADoC, 2000, p. 92).

### 7.3.13. *Local content*

There are numerous possibilities for promoting local content in the digital economy. In South Africa, there is a growing recognition that perhaps the primary source of this local content will be the growth and development of the SMMEs sector. Small, medium and micro-sized enterprises will be looked to increasingly to create employment opportunities for South Africa.

Several international organizations both governmental and non-governmental, including the United Nations Conference on Trade and Development (UNCTAD), the World Intellectual Property Organization (WIPO), the International Chambers of Commerce (ICC) and others are working to promote the impact of both developing countries and SMMEs on the digital economy.

### 7.3.14. *Labor and society*

As South Africa moves towards a digital economy, it is important to work to minimize the negative impact of e-commerce, while harnessing its potential. It is clear that both of these aspects are real possibilities in South Africa. On the one hand, new growth and new types of employment are indeed possible, while on the other hand, “many workers could be come displaced, temporarily or permanently as a result of this transformation” (SADoC, 2000, p. 112). “Clearly there is need for research in this area to evaluate the nature and number of jobs that could be created by e-commerce and lost or displaced due to efficiencies brought about by new ways of doing business and consumers, a new breed of e-commerce firm “the infomediary” is being created to exploit the Internet” (SADoC, 2000, p. 112).

Globally, many of the high-technology workers that have sought fame and fortune in the digital economy, are now becoming highly disillusioned (see Lessard & Baldwin, 1999). Recently, high technology workers at one of the most widely know e-commerce companies, Amazon.com, have attempted to unionize in the Washington Area Technology Workers (WashTech), a union structure within the Communications Workers of America (CWA).

Currently, the International Labor Organization (ILO) is reasserting itself as an important player in the international regime formation process for e-commerce, with a focus on understanding the impact on labor issues.

### 7.3.15. *Human resources and capacity*

While the shortage of human resources with the requisite skills in information and communications technologies requires immediate global attention, this situation is particularly problematic in South Africa. In South Africa, the Human Science Research Council (HSRC) states that, “there is a chronic shortage of highly skilled human resources in various segments of the market. The scarcity of technical expertise and skills, in the country is further exacerbated by the “brain drain” (SADoC, 2000, p. 111).

South Africa further recognizes that human development must occur on at least five different levels: (1) skills and human resources; (2) digital literacy; (3) digital skills for all South Africans; (4) skills for business; and (3) skills for the future (SADoC, 2000, p. 111). Distance education and virtual campuses are seen as important elements of this strategy, and should be supported and developed in South Africa. Examples of the possibilities for developing human capacity can be seen through field studies of geographically distributed collaborative learning (Cogburn, forthcoming).

#### *7.4. Implications of regime transformation for Africa and the developing world*

As can be seen from this case study of South Africa, this newly emerging regime will be wide ranging, and have a tremendous impact on nearly every area of how people “live, work, and play”, as the evolving mantra goes. If this is so, it means that this regime involves perhaps the most important set of principles, norms, and values that can be seen in an international regime. What can be done to influence the direction of the emerging regime so that it might be more just and equitable for a wider grouping of the world’s citizens?

This new regime requires countries, organizations, and individuals to engage in strategic policy initiatives designed to stimulate and harness the full potential of their research and development capacity (including, public, private, and academic sector resources). This strategic approach is especially important for developing countries that have membership in, and access to, the important global information policy and regime enforcement organizations. However, these countries need to develop more “effective access” to these organizations, not just holding membership, but also creating ways to combine their strength and influence these organizations and the concomitant regime formation processes.

### **8. Conclusions and future research**

Globalization is a reality that is helping to fuel the development of an Information Society. Efforts at global regime formation in this area are taking place in both developed and developing countries. Perhaps unexpectedly, there is a significant level of Information Society activity in the Africa region and other parts of the developing world. These efforts notwithstanding, the full, broadly based, potential of an Information Society regime has been limited by the increased focus on one Information Society application—global e-commerce.

While significant controversies remain in a few areas, such as privacy and consumer protection, a high-level of consensus has already begun to emerge around key norms, principles, and values for an e-commerce driven GII/GIS regime. The leading stakeholders in this regime are global and multi-national corporations. These corporate interests in the global policy debate are drowning out many of the voices of developing countries and other societal actors. Immediate assistance is needed from foundations, research institutions, and universities to help strengthen these voices for improved global policy.

The leading policymaking and enforcement mechanism for this new regime will be the World Trade Organization. While the WTO will be the centerpiece organization in the regime, several others, including the World Intellectual Property Organization and the Internet Corporation for Assigned Names and Numbers, will assist it.

However, the existing infrastructure gap in Africa between urban and rural areas, and even more so between the developed and developing countries may hinder their ability to harness the potential of the Information Society and e-commerce. South Africa has responded to this challenge of regime formation by developing several information and communications policy formulation processes (e.g., telecommunications, e-commerce, and information). In each of these, particularly in the e-commerce policy process, the World Trade Organization and other regime formation and enforcement organizations have influenced South Africa significantly.

Additional research should focus on comparing the information policy formulation strategies of South Africa with those of other developing countries as they also respond to these global regime formation pressures. Perhaps analyses of this type will help us to better understand how to influence the development of an emerging regime for information and communications policy that benefits a majority of humankind.

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