

The largest man-made structure on the planet is the immense telecommunication network. From mobile phones to communication satellites, this system has become a seamless part of daily lives and international relations. Being one of the fastest growing aspects of the 20<sup>th</sup> century, an era of great strife for humanity, one would expect its regulation to have been equally chaotic. However, its importance to modern society has established it as a model of cooperation not often found amongst sovereign states. The international governmental organization mandated to oversee this is the International Telecommunication Union (ITU). Virtually every member of the United Nations (UN) has acceded to its convention and it has defectively reigned although it has no enforcement authority.<sup>1</sup>

The ITU is a unique model for cooperation and in this essay a chronological description of its creation and past functions will be used to understand the issues it faces today. The rapid advance of telecommunications has paved the way for increased interconnection of states leading to overlapping of jurisdictions and calls for reform. The success of the ITU as a cooperative body has stood the test of time but as one shall learn, may soon either evolve into a governing body or become a political battleground as globalization's unknown course rushes into the future.

The ITU is a specialized UN agency created in 1947, revised in 1967, then reformed in 1997. A UN member state accedes by signing two documents, the ITU

---

1 The exceptions are Palau, East Timor, and Taiwan. The Palestinian Authority has observer status.

constitution and convention. Withdrawal is possible but has an effective date one year after signing out. Membership is possible for non-UN members in the private and public organizations and requires approval by vote by two-thirds of member states. These are called sectors members, are a national entity, and have non-voting status. Assisting in development of standards and supporting/financing study groups are its function.<sup>2</sup> Additionally, Associate Members may join the ITU, also non-voting, to assist in study groups. Voting rights are only allocated to UN Member States, Sector and Associate Members views and advice are represented by their respective member state. Currently there are 191 UN Members, 575 Sector Members and 150 Associate Members.

Headquartered in Geneva, a plenipotentiary conference of members convenes every four or five years, at which it elects an administrative council of 29 members. Daily functions are managed by a permanent General Secretariat. The ITU employs 702 people from 83 different countries. Employment attempts to promote diversity while hiring only extremely qualified experts. The stringent qualifications for employment aid in its acceptance of its Recommendations by sovereign states when setting international standards.<sup>3</sup> To accomplish its tasks, 197 different activities, the ITU has a biennial budget of US\$320 million. The mechanism for determining dues is based on a specific unit and members donate according to financial ability to pay a fraction or multiple fractions of a unit. The system is somewhat complex and instead a simple breakdown of

---

2 Many international agencies which set standards do not have this unique characteristic.

3 The word, "Recommendations", is capitalized when referring to the ITU, symbolizing its acceptance.

contributions is as follows:

- Member States, which account for 67.3%
- Sector Members contribute 11.4%
- Associates contribute 0.9%
- Sale of publications, project execution, satellite notifications 15.1%.<sup>4</sup>
- Income from interest (5.3% of total funding).

The complexity of the world's telecommunication has the ITU departmentalized in three sectors: Standardization ,Radio communication, and Development. The basic mandate of the ITU is to maintain, extend, and harmonize international cooperation in all aspects of telecommunications.<sup>5</sup> The main areas of concern are:

- Standardize and regulate international radio and telecommunications.
- Extend and improve telecommunication by allotting radio frequencies.
- Encourages the establishment of low rates.
- Perfect communications in rescue operations.<sup>6</sup>

Standardize, extend, improve, encourage, and perfect are smooth words which are rarely used by a Realist entrenched the concept of Westphalian sovereignty..

Furthermore, its convention's preamble states, "While fully recognizing the sovereign right of each State to regulate its telecommunication". The concept of telecommunication and its ease of penetrating borders can be a threat to a sovereign state. So how is it, without the means of enforcement, does the ITU accomplish its

mandate? There is an ITU strategy:

- 
- 4 Limited free information only available, via the ITU website, as required by a UN agencies.  
 5 International Telecommunication Union Website . <http://www.itu.int>. Accessed 28 OCT 2009.  
 6 Medical transports in conflicts are an exception as they are permitted to broadcast in any available frequencies in chaotic situations under "Protocols Additional to the Geneva Conventions of 12 August 1949" superseding ITU Recommendations.

- Stay on top of technological advancement, taking input from interested actors.
- Make recommendations which receive formal international recognition.
- Suggest mechanisms for disputes.
- Considers impacts on all actors- states, organizations, and citizens.

The uniqueness of its function is in the method of cooperation. Since telecommunication affects states, regions, businesses, individuals, and non-governmental entities, one would assume an overwhelming amount of conflicts of interests. The ITU has five major factors allotting its operation-- 1) its longstanding as the accepted body for the task by the international community. 2) the preemptive nature of avoiding conflicts 3) its non-political nature, choosing pragmatism over international law to overcome politics 4) experts that recommend the best possible solution (and consequences. 5) An accepted dispute resolution mechanism.

The can easily comprehend the above items 1 though 4 and only 5 needs explanation. The ITU will provide the parties involved “special assistance”, neutral & professional advice. Having no real enforcement power the ITU has four options states can choose in settling disputes.<sup>7</sup>

- 1) Use the existing bi-lateral or multi-lateral instruments between states.
- 2) Agree upon any other method
- 3) Arbitration- single arbitrator\* or a collegiate court composed of 3 members
  - a) one appointed by each party or side
  - b) then jointly select a third, neutral member.

\*If no agreeable single arbitrator is found, each side nominates one and then is selected

---

<sup>7</sup> International Telecommunication Union Website . <http://www.itu.int>. Accessed 28 OCT 2009.

by the ITU Secretary drawing lots. This process is also used to determine the third member of a collegiate court if none is agreed upon.

4) Optional Additional Protocol- a portion of the ITU member countries have accepted a compulsory arbitration. This based on the extraordinary expertise of the ITU and its avoidance of political matters. Still, these decisions are not binding.

The arguments against these methods is based on the extreme importance of telecommunications. Adherents for change demand more power to settle disputes.

Those in favor of these methods counter with historical facts, actors are more likely to resolve a problem quickly when offered various means of resolution.<sup>8</sup>

Being the second oldest international organization makes a chronological look at past challenges and adaptations a challenge. However, it is essential to understand the effects telecommunications has had on sovereignty. There is exponentially rapid development in the relationship between international communications and issues such as positive and negative human rights. Understanding how this will play out, how it will be resolved, and who shall decide in the near future, are a few of the questions. Yet in telecommunications the unforeseen has been the status quo. The ITU states, "international cooperation among peoples...", but as one shall see, the definition of "peoples" has changed.

The 19<sup>th</sup> century ushered in the telegram (1844) and a host of issues, one being access to telegram service by the general public (1854). A decade later multilateral and bilateral treaties were established to send early communiqués via telegraph across

state boundaries. Lacking standardized equipment, messages were walked over borders, and retransmitted to the next frontier. The conglomeration of protocols diminished the effectiveness of state to state communication. Then in Paris in 1865, 20 states signed an agreement creating the International Telegraph Convention. This would indicate a positive move in the international relations but in reality it monopolized the system into a sovereign club as they were free to regulate access and tariffs upon their populations. Telegraph services, and the newly invented telephone, came under governmental jurisdiction. Britain was excluded from the union until 1871 until it finally nationalized its privately owned communication system.<sup>9</sup> The basic objectives of the union are still in existence today. Sovereign states had surrendered little authority over their dominions and received tremendous benefits from this regime.

The early twentieth century ushered in radio communications at an astronomical rate without a viable regime to oversee it. A prime example from 1902 on the chaos involved a well wishing Prince Henry of Prussia departing the United States after a visit with President Theodore Roosevelt. The radio telegram sent on a Telefunken unit from his sailing vessel was refused a relay by a US-based operator on the grounds that they were receiving a the transmission on a Marconi unit. This led to the first International Radio Telegram conference (1906) in Berlin. Oddly, the United States was hesitant to attend until it was deemed constitutional legitimate for the federal government to

---

9 Williams, M.B. "International Standards for Telecommunications." *Philosophical Transactions of the Royal Society of London*. Vol. 289, No. 1356,(1978): 186.

become involved in this area of commerce. The issues became slightly political as more states joined various communications unions that covered each new technological development. European powers began insisting on voting rights for their colonies to increase the weight of their influence on regulations.

The ITU as we know today , an umbrella for all aspects of telecommunications, was founded by a merger in 1934 of the original ITU (1865) and International Radiotelegraph Convention (1906) both based in Europe. The importance of this fact is that attempts were being made in Washington in producing a regime. In 1927, while the IRC began allocated frequency bands to different radio services, the International Radio Consultative Committee (CCIR) was established at a conference held in Washington D.C.<sup>10</sup> In the following decades there was an explosion in the number of international shortwave radio stations and arrival of television broadcasting, increased conflicts between ideological systems, capitalism versus communism, a world war, and a collapse of the European colonial system. The 1934 merger creating ITU withstood it, had separate competing regimes been in place, today's world of cooperative telecommunication would be a distant fantasy.

The modern ITU from 1947 was established as a UN specialized agency right at the start of the Cold War. One would expect the ITU to be involved with disputes regarding Voice of America and Soviet broadcasts but this is not the case. As sovereign states still

---

<sup>10</sup> Concerning fixed, maritime and aeronautical mobile, broadcasting, amateur and experimental radio.

monopolized content and the ITU regulating standards and frequencies. The real challenge was ushered with the successful launching of the Soviet's satellite Sputnik in 1957. Soon the ITU would be faced with some very difficult decisions, from what angle should they regulate this new technology, on the basis of international law during an era of opposing ideological systems or pragmatism?<sup>11</sup>

The issue was settled by a decision in 1964 by the Kennedy administration, realizing treaty negotiations would be too complex, to allow access to US communication satellites to further increase cooperation and prosperity amongst its democratic partners.<sup>12</sup> As per usual, the ITU began studying the question in 1959 before the issue reached an apex. The pragmatic recommendations in allocating frequencies and uses put forth by the ITU were accepted by both East and West. The real challenges to the ITU were to soon arrive and the lock down on control of telecommunications by sovereign states was soon to be challenged.

The transistorized age of communications created an era of change that one today takes for granted. This change opened up the state monopoly on communications. Two theories, the little bang and big bang, attempt to explain this. The former in that the massive influx of new technologies developed by private industry overwhelmed state telecoms. In the latter case, due to pressure from private industries and consumers,

---

11 Dalfe, C.M., André Bissonnette, Pierre Juneau, and Ivan Vlastic. *International Legal Problems of Direct Satellite Broadcasting*. The University of Toronto Law Journal, Vol. 20, No. 3 (1970): 331

12 The US launched its first geostationary communications satellite Syncom-1 in 1963.

governments lessened their grip on domestic markets.<sup>13</sup> States had been using domestic markets in a pyramid scheme. High tariffs on international communications supported the domestic telephone systems, high domestic telephone tariffs supported a monopoly allowing high wage union jobs, and additional income from controlling all telecommunications help support domestic postal systems. These changes were resulted in a revision of the ITU in 1967 that began allowing Sector and Associate members.

In the following decades, both international competition in telecommunications and the voices of lesser developed countries (LDC) increased, resulting in the opening of domestic markets to foreign competition. In 1985 the ITU responded to LDC demands and every country was allocated at least one satellite orbit and band of frequencies.<sup>14</sup> The previous system allotted on a first come, first serve basis. Soon afterwards, the ITU began providing technical assistance to LDC and reshape its image.<sup>15</sup> The 1990's saw a major shift as markets themselves began controlling telecommunications as opposed to states. As private companies began launching satellites and packaging digital services, the ITU in 1992 reformed itself to adapt to the changing world.<sup>16</sup> To increase flexibility, it divided responsibilities into three sectors; Standardization , Radio Communication, and

---

13 Kishan, Daya. "Lost in Space." *Foreign Policy*, No. 124 (2001): 70.

14 Staple, Gregory. "The New World Satellite Order: A Report from Geneva." *The American Journal of International Law*, Vol. 80, No. 3 (1986): 700.

15 Rölller, Lars-Hendrik and Waverman, Leonard. "Telecommunications Infrastructure and Economic Development: A Simultaneous Approach." *The American Economic Review*, Vol. 91, No. 4 (2001): 912.

16 Peter Cowhey. "The International Telecommunications Regime: The Political Roots of Regimes for High Technology." *International Organization*, Vol. 44, No. 2 (1990): 179.

Development. Consequently, consumer protection these reforms began adding a layer of protection from market controlled telecommunications, something that was difficult to accomplish while states reigned over domestic markets

Before examining today's challenges, there are two past incidents regarding politics and international law, that shed light on the future of the ITU. In 1982, the Arab States began using the plenipotentiary meeting as pulpit on which to vent political ideology condemning Israel. This was quickly ended when the United States threatened to pull out of the conference and union.<sup>17</sup> The concept here is that the state financing a majority of the ITU budget could influence the behavior of states in the union. This may have ramifications for the ITU as the world's wealth is shifting to various axes. And on a side political note, many Arab states add reservations to agreements at conferences stating, "that the signature and possible ratification by their respective Governments of the Final Acts of this Conference, should not be valid for the ITU Member under the name "Israel", and in no way whatsoever imply its recognition by these Governments."

An interesting thorn in the pawn of international law was the explosion of pirate radio stations (PRS) starting in 1959. As member states accept the norms of international telecommunications under Recommendations of the ITU, the PRS slipped through both the cracks of international law and ITU convention. Freedom to transmit from vessels

---

<sup>17</sup> Gegg, Donna. "Capitalizing on National Self-Interest: The Management of International Telecommunication Conflict by the International Telecommunication Union." *Law and Contemporary Problems*, Vol. 45, No. 1, (1982) 42.

outside sovereign territories is permissible the High Seas Convention yet is contrary to ITU regulations. Without the power to enforce regulations, it must rely on the state of a ship's registry to do so, and it may not be capable or care to.

The ITU forward two solutions to combat this but they ended up being ineffective. When the conventions were modified to include floating vessels from illegal broadcasting, PRS only needed to attach to the sea floor to skirt this regulation. The next attempt was to allow port authorities to search vessels for equipment used by PRS when docked. But they could only report their findings and not take any action. These examples only illustrate the fragile nature of the regime in regards to enforcement.

The 21<sup>st</sup> Century's impact on telecommunications by the use of millions of devices are not only raising calls for additional authority to be embellished in the ITU, but also is forcing a merger between different international regimes. Glottalization for example is causing a new hybrid form of telecommunication as mobile phones and the Internet become inseparable. How shall international regimes distribute authority over the Internet, telecommunication, trade in services, and developing affordable access? If one examines this chart from created by the Working Group on Internet Governance, a brief discussion can be made possible mergers, conflicts , or redundancy in jurisdiction that may occur.

Regime	Institution	Organizational form	Functions
Interconnection	ITU	UN	Sets telecom. standards, manages spectrum, hosts WSIS with UNESCO
Domain names	ICANN	Private-sector, non-profit company	Appropriates scarce name space, dispute settlement in DNS matters
Intellectual property	WIPO	UN	Represents copyright and patent holders
International trade policy	WTO	Non-UN	Negotiates reductions in barriers to trade in goods/services (telec. services), dispute settlement in trade matters
Technical assistance	UNCTAD	UN	Provides assistance (capacity building) in e-commerce for development

Internet Corporation for Assigned Names and Numbers (ICANN) is a non-profit us based company acting under an agreement to control the ARPA addressing system of the Internet.<sup>18</sup> As telecommunication and the Internet merge the question has been put forth on why much of the Internet is under is under US control.<sup>19</sup> Counter to promoting technology to assist LDC, up until October 2009 the system was based on Latin characters excluding a majority of the world's population.<sup>20</sup> But if ICANN's

18 ARPA is a backronym for Address and Routing Parameter Area, the Internet addressing system.

19 The U.S. private sector controls about 85 percent of the Internet's underlying infrastructure. European nations often complain about the legality of the US government assigning authority to a private organization. Andrew Muarry and Colin Scott. "Controlling the New Media: Hybrid Responses to New Forms of Power." *The Modern Law Review*, Vol. 65, No. 4 (2002): 516.

20 For example *Putin@kremlin.rf*, will soon be accessed by *Путин@кремль.рф*.

responsibilities are shifted to the ITU will sovereign states gain more domestic control as the only voting members. The ITU convention preamble clearly states , "While fully recognizing the sovereign right of each State to regulate its telecommunication." If we combine this with the fact ITU financial support comes from state donations and the world's fastest growing economy is steered by an authoritarian regime, will the future Internet be steered according to the wealthiest actor? Will technological assistance in the future to LDC be a way for a authoritarian regulator of the Internet to extend power? And if sovereign states reel in control rather than market forces, what will be the impact on the citizenry? Hegemons often set standards and in this age of information its impact is unknown.<sup>21</sup>

If the duties of WIPO are transferred to the ITU, then the entire nature of the system changes into a police security oversight agencies? But then again where would enforcement lie? Where the copyright material was violated, where the violators committed the act, or which country the violators are citizens of? This issue obviously needs to stay clear of merging with the ITU. The WTO currently ignores the billions of dollars in traded services flowing through ITU jurisdiction, what if they were negotiate settlements contrary to current norms?<sup>22</sup> Would the ITU respond to encroach on its territory with a Recommendation, or allow international law to win out as stated in its

---

21 Lazer, David."Regulatory Capitalism as a Networked Order: The International System as an Informational Network." *Annals of the American Academy of Political and Social Science*, Vol. 598, (2005): 52.

22 Gilston, Samuel. "A Weekly Report for Business Executives on U.S. Trade Policies, Negotiations, Legislation, Export Controls and Trade Laws." *Samuel Gilston Vol. 26, No. 48 (2006)*. 1-2.

first method of dispute settlement? The result would be a whole new ITU. Since the current system adapts and is a long respected regime, some cross over in jurisdiction should be considered an inconvenience. Finally, UNCTAD's responsibilities in developing e-commerce might benefit from the overlapping due to ITU expertise and extensive non-state sector and associate members.

Reality is how one perceives it and the inclusive, professional, and objective operations of the ITU are model for other UN agencies. But in a evolving world with these crossover mandates and jurisdictions, it is surprising to see the current list of topics roaming the headquarter halls in Geneva.<sup>23</sup>

- Accessibility : Achieving equitable communication for everyone
- Confronting the financial crisis : Its impact on the ICT industry
- Climate Change and ITU : Promoting the use of ICTs to combat climate change
- Cyber security, Spam & Cybercrime : Confidence and security in the use of ICTs
- Connecting the unconnected by 2015 : Bridging the digital divide
- Saving lives : Telecommunication is critical at all phases of disaster management
- Networks of the future : Next Generation Networks & Global Standards

It seems that everything under the sun comes up on their radar screen and crosses over with a multitude of UN agencies, governments, international governmental and non-government organizations, as well as businesses and local agencies. The guiding instrument as a recommending body may either be further elevated or completely reformed into a more authoritative body under these kinds of circumstances. How will

---

23 International Telecommunication Union Website . <http://www.itu.int>. Accessed 28 OCT 2009.

the agency react when constituent members begin to engage in cyber wars? Is this an aggressive act condemned by the UN Charter or does it require the ITU to be involved? Will member states remain and support the ITU if a cyber war occurs? With no enforcement mechanism, will its internationally recognized norm of Recommendations be an adequate measure in a cyber conflict.

The ITU has been extremely effective in dealing with the most rapid changes in human history by the most humble means. Its fundamental objectives since inception have always been at the forefront trumping politics and conflict. Even sovereign states have come to terms over technological issues in this arena while denouncing each other at the podium of the UN General Assembly. Indeed, the world has realized it cannot function in the modern age without the ITU. The challenging issues which are now called for to be included into its mandate will only drag in politics as usually. Its motto is “connecting the world”, not “correcting the world.” A regime that attempts to provide fairness and objectivity to benefit all members, may need to be isolated from social, economic, environmental, and political issues. If not we may find the answer to the first question sent via telecommunications, “What has God wrought?”