Fall 2006

Editor's Message
PGI Editorial Staff

The Global Intelligence Network: Issues in International Intelligence Cooperation
Marta Sparago

Mongolia at 800: Towards Enhanced U.S. and International Support
Stephen E. Noerper, Ph.D

Information Technology for Developing Countries: One Laptop Per Child
Wayne Moses Burke

PGI VOLUME 1, ISSUE 1 — WINTER 2006 Editor's Message by PGI Editorial Staff Welcome to the first edition of Perspectives on Global Issues. This publication was conceived by students of the New York University Center for Global Affairs Masters Program to provide a forum for the exchange and presentation of ideas relevant to the world at large. We decided to create an open dialogue with the Global Affairs community to engage in a virtual discussion by presenting challenging and even controversial ideas. The theme of the first publication focuses on development in its many incarnations. There are as many visions of development as there are people in the world. For some, development focuses on markets and GDP, others envision human rights as a sine qua non of development. Following the United Nations Millennium Declaration in 2000, which, along with several other goals, promised to halve extreme poverty, halt the spread of HIV/AIDS, and provide universal primary education by 2015; the world was buzzing with excitement about the possibility of collective efforts to attack the ills of the developing world. So where has all the excitement and energy gone? On September 11, 2001, the focus shifted away from the developing world toward terrorism. The world's resources and collective will were redirected to fight another enemy and, as a result, the plight of the developing world inauspiciously moved to the background. What began as a clear new path toward development and mutual responsibility has become muddied and fragmented. In this publication, we are seeking to address some aspects of development and human progress in the current atmosphere. In his article "Mongolia at 800: Toward Enhanced U.S. and International Support," Professor Stephen E. Noerper makes a compelling case for enhanced US and international recognition of Mongolia, a country largely forgotten by the international community whose inclusion on the world stage has the potential to have a large impact on global affairs. Wayne Burke sends a similar message in his analysis of the efforts of the One Laptop per Child organization. The project aims to enrich children by bridging the digital divide and thereby allowing them to contribute to their community's development. Security is an integral part of development. The Global Intelligence Network by Marta Sparago examines international intelligence sharing and proposes greater international integration and collaboration. Insecurity and conflict is a barrier to development, and greater international intelligence sharing can overcome this hurdle. A common thread throughout the articles is the proposition that development is a complex and interdependent process, requiring an integrated and collaborative approach. These articles highlight just a few interpretations of the meaning of development. Enjoy our first issue and we hope the publication will encourage you to submit your work and

provide us with your insight as global citizens. Leonardo de Matos Silva Zywottek Jennifer Cohen Laura Grossman

PGI 1 VOLUME 1, ISSUE 1 — WINTER 2006 The Global Intelligence Network: Issues in International Intelligence Cooperation by Marta Sparago Introduction Alliance building is a core foundation of international relations. In times of war and peace, nations have frequently cemented their relationships through diplomatic exchanges and governmental contacts. It is these relationships that can help build a long lasting front against security threats. But like any other relationship, these need to be tended to and looked after. In order for any relationship to be successful and mutually beneficial, a high level of trust and commitment must be achieved and maintained. In the world of intelligence, be it domestic or global, this relationship of cooperation and collaboration is vital to maintaining peace and security. There are numerous examples of international regimes whose purpose is that of collective security. These regimes include but are not limited to military alliances, state building coalitions, and multi-state defense and security networks. International intelligence cooperation is another pillar of this collective security regime. The states that are members of these regimes will often share intelligence with one another's respective intelligence services and governments. These foreign intelligence services (FIS) offer their allies and counterpart's intelligence services information that might not be otherwise attained. The United States is home to the most advanced technology in the world. This however does not guarantee that all the intelligence that is gathered is accurate. The use of signals intelligence (SIGINT) is obviously an important part of intelligence gathering and analysis. But the U.S. can not be everywhere and often comes up against numerous obstacles where they do have a presence. Employing foreign intelligence officers for example will help bridge the intelligence gap that exists between the capabilities of U.S. intelligence and the intelligence that they actually get. Intelligence cooperation has many obvious benefits, but there are also many risks involved. Cooperation means two or more parties working together. The cooperation is diminished if one party defects from the agreement. Another issue is priority. A security issue may dominate the concerns of one country while not the concerns of another. Because the latter is not focused on a particular threat, any pertinent information may go overlooked. Furthermore, there is that prospect that the cooperation could actually lead to a security crisis within the relationship. If one country shares its information with another country, the former is at risk of possibly sharing too much information and allowing a foreign government access to its most heavily guarded state secrets. The purpose of this article is to examine the costs and benefits of international intelligence cooperation and how this cooperation fits into the theoretical framework of international relations. I will examine various aspects of the U.S. intelligence community and its relations with foreign intelligence services. The context of the article will be how intelligence cooperation is a vital part of maintaining state security and is now more important than ever in the age of transnational terrorism. The U.S. Intelligence Community As Michael Warner writes in his article, "Intelligence Transformation and Intelligence Liaison", "the primary mission of any intelligence structure is to defend its population and vital interests." In order to understand the importance of international intelligence cooperation it is important to understand the U.S. intelligence community. PGI 2 VOLUME 1, ISSUE 1 — WINTER 2006 The area in which the U.S. has a clear advantage is that of SIGINT, or signals intelligence. The U.S. owns and operates numerous satellites and other highly advanced technological methods of intelligence gathering. The U.S. is highly adept at monitoring land based and cellular

communications, email monitoring, and other forms of "chatter" interception. Through the use of satellite imagery, analysts are able to pinpoint terrorist training camps for example. The area of HUMINT, or human intelligence, and other classical forms of espionage have however been harder to capitalize on over the years. Now that we are in the age of globalization, the technology must be able to keep up with the threats. These threats are often facilitated by the globalization of technology and information exchange. The internet, for example, has proven an extraordinarily effective recruitment and educational tool for terrorists. International Intelligence Cooperation Information sharing between international intelligence and security services is nothing new, nor is it a loosely organized and ill-governed association that operates free of oversight. Yes, some of these agreements fall under the unofficial and non-binding gentleman's category, but they are durable and unyielding despite lacking certain basic formalities. These such agreements are formed without the official and proper terms that usually dictate interstate agreements. They are done through their own channels, using their own terms which are largely outside the realm of the tradition political structure: "Intelligence exchange between these organizations is a world within a world, governed by its own diplomacy and characterized by elaborate agreements, understandings and treaties." (Aldrich 737).1 International intelligence cooperation can take many forms. Most often it is part of a bilateral agreement between states. This usually involves the exchange of liaison officers between the party's intelligence services. Another way is through dual access to intelligence via technological means such as satellite sharing. Here is a brief account of various cooperative intelligence agreements that have been established over the years. The United States has had a cooperative relationship with Israel for decades. This relationship grew during the Cold War when Russian immigrants to Israel provided the Mossad with valuable information about the Soviet Union, which was in turn given to the U.S. This relationship has also been vital to the U.S. in its efforts to monitor the situation in the Middle East. Another type of intelligence cooperation is through multilateral agreements. The intelligence services of the U.K. and the U.S. have had a long and successful cooperative relationship. This is most evident in the formation of the 1948 UKUSA agreement which includes the U.S., the U.K., and also Australia, New Zealand, and Canada. This Anglo-American agreement employs shared satellite technology access between these nations. Also know as the "5 Eyes", the various intelligence services of these states monitor SIGINT. In addition to working with local law enforcement, there is also a high level of intelligence cooperation in the realm of finance. Numerous countries have worked with the U.S. to detect and freeze the assets of terror groups. The Egmont Group was started in 1995 as a way to confront money laundering. Later on the focus shifted to terrorist financing.2 The Berne Group is a security and intelligence working group in Europe that the U.S. is not a member of. The Berne Group holds meetings throughout the year attended by the heads of the various security services in Europe. After 9-11 the Berne Group created the Counterterrorism Group (CTG) of which the U.S. is a part.3Although the U.S. is not a party to the Berne Group, there should be PGI 3 VOLUME 1, ISSUE 1 — WINTER 2006 room for a degree of transatlantic cooperation. Even if the U.S. is only granted something along the lines of observer status, this is one organization that would be worth courting. Intelligence Cooperation and the War on Terror The biggest threats that the U.S. now faces are transnational. These threats include terrorism, drug trafficking, international crime, and the proliferation of WMD. These threats are transnational meaning they know no borders, perpetrators have no return address, and their reach is now global. These threats have a high mobility meaning it is easy to pick up and move around undetected. The threats that operate in weak and failed states are particularly worrisome because there is little domestic monitoring, let alone international. Porous

borders, ineffectual governments, and minimal rule of law enable these threats to continue operating on such a grand scale. The lack of restraint these groups and threats have is precisely why internatio nal intelligence cooperation is more important then ever. As has already been discussed, terrorism is a tactic. It is an entity in itself that can not be stopped or prevented by military force alone. Transnational threats require a transnational effort to fight them with even the slightest hope of success; "interests of the EU and the U.S. coalesced and found the expression in the formalization of intelligence agency cooperation in the days after 9/11" (Segell 82). The unilateral actions of the Bush administration are working to undermine this effort. It is true the U.S. has worked with foreign intelligence services in counterterrorism before, but there must be a bigger effort now to include and accommodate foreign intelligence into the domestic counterterrorism sphere. As we have seen in Egypt, Bali, Madrid, and London, terrorist attacks from Jihadist groups are not just isolated to the U.S. Intelligence cooperation is therefore mutually beneficial particularly for states that face similar security threats. It is important that we establish relationships with other intelligence communities and also with other cooperation organizations that the U.S. is not party to. Working with states previously considered hostile or rogue states should also be considered. The U.S. has already worked with Libya and Syria for example in the war of terror. Ignoring and isolating regimes that abuse human rights or are a security threat themselves will not help the war on terror. These governments are an untapped resource that for the sake of preserving the American political conscience and setting the gold standard for morality, the U.S. government has not utilized. Engaging these governments would be a positive step in the international counterterrorism effort and it will establish relations that can be nurtured in the future. Working with nefarious governments, while tasteless and questionable to some, has more potential benefits than costs. Because many of these states have a terrorist presence, it would make sense to go right to the source. One example is the cooperation between the U.S. and Sudan despite that country's appalling human rights record in Darfur: "The Bush administration has forged a close intelligence partnership with the Islamic regime that once welcomed Osama bin Laden here, even though Sudan continues to come under harsh U.S. and international criticism for human rights violations. The Sudanese government, an unlikely ally in the U.S. fight against terror, remains on the most recent U.S. list of state sponsors of terrorism. At the same time, however, it has been providing access to terrorism suspects and sharing intelligence data with the United States"4 Issues of intelligence cooperation In order for intelligence cooperation to work, there must be an established trust between the governments and intelligence services. Intelligence cooperation amongst the world's intelligence and security services can be viewed as one of the many international regimes that PGI 4 VOLUME 1, ISSUE 1 — WINTER 2006 have become common on the international stage. Within the theoretical framework of international relations, we are able to explain the costs and benefits of intelligence cooperation. The costs of intelligence cooperation can be explained by realism. States operate in an anarchic world. States will act selfishly and cooperation can diminish the states ability to gain leverage over other states. The unilateral and centrist actions of individual states threaten the functionality of these regimes because there are no real regulations to guarantee adherence. The first cost is the risk of defection. If a FIS or state government defects from an agreement, then the other intelligence services will be excluded from that states intelligence. Risk of defection is one of the reasons why realists are dismissive of regimes and institutions. Second, in order for intelligence cooperation to be mutually beneficial to all involved, there must be equal levels of sharing. This relationship is a two-way street. If one intelligence service contributes to the safety and security of another, there must be reciprocity for the relationship to continue and be

beneficial. Asymmetrical information sharing is counterproductive and will ultimately cost the withholder valuable information that may negatively affect future prospects for cooperation. A third cost of intelligence cooperation is asymmetrical priorities. Terrorism is a top priority for the U.S. A significant part of its intelligence is directed towards the "war on terror". A FIS cooperating with the U.S. may not view terrorism as a high priority for the security of its own state. Because this state is not focused on terrorism, it will not be considered a security threat and will therefore not be an intelligence priority. This asymmetry allows valuable intelligence to slip through the cracks because a FIS might not be as alert or attuned to certain information as the U.S. would be. This asymmetry can also be found in the legal systems and policies of foreign governments. The policy objectives and legalities that intelligence and security organizations function under vary by country: "International intelligence cooperation presents a delicate quandary as between secrecy and transparency, sovereignty and cooperative security, especially in relation to collaboration among democracies" (Rudner 222). There may be a divergence in the way that intelligence is gathered. Certain services will put more stock in raw data while others focus on the finished product. Many domestic laws also vary and what is legal in one country may not be legal in another. This can be detrimental to a relationship as is the case of the governments of the EU states refusal to extradite criminals and terror suspects to the U.S. who would possibly face the death penalty. This asymmetrical policy dilemma also means that intelligence services may need to work with a FIS in a state that commits human rights abuses and who would otherwise be shunned by the international community. A fourth cost is the intelligence itself. The U.S. has its share of enemies, many of whom may be operating within the state of one of our allies or intelligence partners. There is of course always the risk that the intelligence that is relayed may be incorrect. However, this problem is magnified by the reliance on foreign intelligence because there is no guarantee this intelligence is being passed along for benevolent purposes. Furthermore, working with a FIS means opening up portions of your own domestic capabilities to a foreign party. Allowing a foreign government or intelligence service access to classified and potentially damaging information causes a security dilemma in itself. This shared intelligence could be used against the U.S. in the future by recruiting double agents to spy for a foreign government from within the U.S. community. An American by the name of Jonathan Pollard was recruited by the Israelis to PGI 5 VOLUME 1, ISSUE 1 — WINTER 2006 provide satellite imagery of Iraq.5 While this intelligence was not used against the U.S., its disclosure was not part of the American-Israeli cooperation agreement. Intelligence services frequently establish liaison relationships. Who is to say that the information being exchanged will not be tainted and used for clandestine operations against their host? Taking this one step further, many intelligence services and governments share satellite technology and often assist cooperation members with SIGINT. Is there any guarantee that our own technology will not be used against us if operated by a foreign government? If a foreign government is allowed access to our technology, we are placing a dangerously high level of trust in potentially damaging hands: "Countries are always concerned that the information that they share could end up in the in the hands of a third party, either accidentally or intentionally" (Bensahel 40) Of course this is all usually done with the FIS of a friendly government, but what is to stop them from walking in once we open that door. While there are clearly many costs to intelligence cooperation, there are also many benefits. By cooperating with other states in a regime or institution, a state will be able to maximize its own gains by reinforcing the gains of others. This will then allow the U.S. to focus on areas where we are able to operate most effectively. For all of the United States' state of the art technology and overwhelming military capability, the U.S. can not thoroughly monitor

every country or group that is deemed a security threat. Intelligence cooperation affords a high degree of burden sharing. This should not be viewed as passing off work the U.S. does not want to do, but that in which the U.S. can not do for lack of resources or capability. With a strong military presence in Iraq and Afghanistan, military forces are stretched very thin and most of the U.S. intelligence focus is on these regions. A FIS can pick up the slack in regions where a threat exists, but may not warrant a strong U.S. presence. A second benefit to intelligence cooperation is that a FIS will have access to a region that the U.S. may not be able to infiltrate successfully. A FIS will have a greater chance of working successfully in a potentially hostile region because it is not American. Employing regional specialists and people with a native knowledge of a particular area will have knowledge of local customs and traditions that an American can never have. This knowledge is a particular asset in countries that have a long history of tribalism and adherence to regionally specific norms that are not taught in books or in the classroom. Members of a FIS will be able to go where the U.S. can not. HUMINT is not easy to come by, especially when dealing with a terrorist cell. A FIS officer has a better chance of gaining access to and acceptance from groups that are highly attentive to possible informers. It is these officers that can get by undetected better than an American. Sharing the burden and the ability to gain access to areas where the U.S. can not is part of the comparative advantage that a FIS has over the U.S. It is because of this advantage that the U.S. should rely on foreign intelligence: "All intelligence agencies enjoy certain comparative advantages. In some cases, these may derive from functional, tradecraft, or technical attribution-largely based on specialization expertise, knowledge resources or technological solutions. In other instances the comparative advantage of intelligence services may derive from geography, where they enjoy a locational advantage, or from a socio-cultural affinity" (Rudner 216). A FIS will have intelligence capabilities that we do not or that we can not utilize to its maximum benefit. Instead of trying to do everything and be anywhere when we obviously can not, it is PGI 6 VOLUME 1, ISSUE 1 — WINTER 2006 more beneficial to U.S. security and the U.S. intelligence community to focus on the areas where they can achieve that maximum benefit. Cooperating with a FIS allows the U.S. to gain the most information possible while not bearing the costs of unnecessary intelligence failures. Because the U.S. will no longer have to focus on a particular region or a specific intelligence gathering operation that yields minimal results and benefits, they can instead divert that attention to areas where they can maximize that intelligence benefit. A FIS is therefore vital to bridging the gaps in American intelligence gathering and analysis. Why should the U.S. waste valuable money, time, and manpower on something that another country can achieve at a lower cost and with better results? Aside from gathering and sharing intelligence with a FIS, the U.S. intelligence community is now in the position to learn from other intelligence services. Terrorism is nothing new to other parts of the world. Europe and Israel have been dealing with terrorism for decades. Working with the intelligence services in Europe, Israel, and other states will provide invaluable lessons in counterterrorism to our intelligence community. Learning how other states have dealt with terrorism and other threats is beneficial to the U.S. because other states will have more direct experience than we do. How has the Mossad dealt with Hamas? How did MI5 deal with the IRA? How did the Spanish handle ETA? What can we learn from the Russian effort to quell the situation in Chechnya? How have the Colombians succeeded in their work with the FARC? How did they fail? The U.S. must keep in mind that as far as terrorist attacks on home soil are concerned, we are the new kids on the block. Why not engage other countries with a record of counterterrorism to educate our intelligence and security communities on the lessons of terror that they have learned? Finding out what has worked and what has not worked abroad will only

enhance our own counterterrorism efforts. Providing our intelligence services with a greater opportunity for education with a FIS is one way we could learn from one of our intelligence allies. Not only is working with a FIS beneficial to our own intelligence, but it provides us the opportunity to share and exchange information on intelligence gathering techniques and technology, not to mention the regional and area knowledge we could stand to gain. Lastly, cooperation between an intelligence service and state and local law enforcement can provide another route by which information can be shared. Because law enforcement agencies function under a different set of guidelines and operational directives than an intelligence agency, they will be approaching the security mandate from a different perspective. Bringing in outside resources beyond the intelligence sector, but still related to issues of security and intelligence is one more way to bolster intelligence cooperation and collaboration in detecting and thwarting threats. Integrated cooperation between these two communities will add a new dimension to threat assessment and security management. Conclusion After looking at international intelligence from a cost-benefit perspective, intelligence cooperation is clearly more beneficial than costly. While there are many issues that can make intelligence cooperation problematic, these issues can easily be overcome. In order for cooperation to be effective, there must be some balance in the sharing of intelligence. Establishing a cooperative symmetry is therefore in the best interest of the parties involved. Of course, given the ever changing state of geopolitics, this relationship can be one sided at times. In order to keep the relationship from deteriorating, counterbalancing the sharing of intelligence with the cooperative partner should be a priority to maintaining the relationship. For example, the use of financial incentives, such as economic aid packages or establishing a trade partnership is one way of enticing a foreign government to cooperate and to help offset any imbalances that may arise. Another way is to provide security and intelligence services to a government that might not have the capacity for protecting itself. PGI 7 VOLUME 1, ISSUE 1 — WINTER 2006 A second way to overcome cooperative issues is to establish and maintain credibility within the global intelligence community. The U.S. must actively signal to their international counterparts that they can and will cooperate effectively. Establishing trust through confidence building is one such step towards building credibility. The U.S. must embrace the fact that we can not do everything ourselves and that what we can do may not achieve the best results. Just because the U.S. has the best technology does not mean it will yield the best intelligence. Knowing where the strengths and weaknesses of U.S. intelligence lie is the key to enhancing intelligence gathering, analysis, and gaining optimum results. Ignoring where the deficiencies are will only harm the ability of the intelligence community to act effectively and efficiently. Working with a FIS to bridge intelligence gaps and pick up what may fall through the cracks is the way to achieve optimum results and enhance our own intelligence capabilities. Intelligence cooperation is nothing new, but it is now more apparent than ever before just how important these cooperative relationships can be. Working with a FIS is one of the best ways to gather intelligence. They are able to penetrate regions where we can not. A FIS is better equipped to deal with local populations that are hostile to the U.S. They can get through undetected and will have a more successful rate of cultural and societal immersion than we could ever have. A FIS will have native knowledge of regional customs and a higher degree of appreciation for these customs. They will be able to operate within these cultures far easier than we can and will therefore have the ability to gather intelligence that we could not. Recognizing the utility of regional specialists and FIS officers will only add to the intelligence gathering and analytical process, thus augmenting U.S. intelligence capabilities. This in turn will enhance threat assessment abilities which will improve our efforts in maintaining state security. Many of

the documents pertaining to intelligence cooperation remain classified. Therefore one can only assume and make predictions about some of these relationships. But the data that is available indicates that these cooperative relationships are better to have than not. In the case of international intelligence cooperation, the uncertainty and the costs are more than worth the risks. Notes 1. See "Transatlantic Intelligence and Security Cooperation" 2. See Rudner 3. See Aldrich "Transatlantic Intelligence and Security Cooperation" 4. Silverstein, Ken. "Official Pariah Sudan Valuable to America's War on Terror" Los Angeles Times April 29, 2005. A.1. Online. ProQuest. 5. See "Mossad-CIA Cooperation" by Ephraim Kahana Bibliography 1. Segell, Glen M. "Intelligence Relations Between the European Union and the U.S." International Journal of Intelligence and Counterintelligence 2004, 17:1, 81-96. Online. Taylor and Francis. March 21, 2006. 2. Bensahel, Nora. "A Coalition of Coalitions: International Cooperation against Terrorism." Studies in Conflict and Terrorism. 2006, 29:35-49. Online. Taylor and Francis. March 20, 2006. PGI 8 VOLUME 1, ISSUE 1 — WINTER 2006 3. Lefebvre, Stephane. "The Difficulties and Dilemmas of International Intelligence Cooperation." International Journal of Intelligence and Counterintelligence. 2003, 16:4, 527- 542. Online. Taylor and Francis. March 20, 2006. 4. Kahana, Ephraim. "Mossad-CIA Cooperation." International Journal of Intelligence and Counterintelligence. 2001, 14:3, 409-420. Online. Taylor and Francis. March 14, 2006. 5. Warner, Michael. "Intelligence Transformation and Intelligence Liaison". SAIS Review. Winter 2001, 24:1. Online. Proquest. March 28, 2006. 6. Aldrich, Richard J. "Dangerous Liaisons." Harvard International Review. Fall 2002, 24:3, 50-55. Online. ProQuest. March 21, 2006. 7. Aldrich, Richard J. "Transatlantic Intelligence and Security Cooperation." International Affairs. 2004, 80:4, 731-753. Online. March 20, 2006. 8. Rudner, Martin. "Hunters and Gatherers: The Intelligence Coalition Against Islamic Terrorism." International Journal of Intelligence and Counterintelligence. 2004, 17:2, 193- 230. Online. Taylor and Francis. March 21, 2006. 9. United States. Office of the Director of National Intelligence. The National Intelligence Strategy of the United States of America. Washington: October 2005. Online. www.globalsecurity.org. March 14, 2006. 10. Fessenden, Helen. "The Limits of Intelligence Reform." Foreign Affairs. Nov/Dec 2005, 84:6, p.106. Online. ProQuest. March 21, 2006. About the author Marta Sparago is currently a second year Masters student at the Center for Global Affairs at New York University. Her areas of interest are terrorism and national security. Ms. Sparago also holds a BA in History from Columbia University.

PGI 1 VOLUME 1, ISSUE 1 — WINTER 2006 The Global Intelligence Network: Issues in International Intelligence Cooperation by Marta Sparago Introduction Alliance building is a core foundation of international relations. In times of war and peace, nations have frequently cemented their relationships through diplomatic exchanges and governmental contacts. It is these relationships that can help build a long lasting front against security threats. But like any other relationship, these need to be tended to and looked after. In order for any relationship to be successful and mutually beneficial, a high level of trust and commitment must be achieved and maintained. In the world of intelligence, be it domestic or global, this relationship of cooperation and collaboration is vital to maintaining peace and security. There are numerous examples of international regimes whose purpose is that of collective security. These regimes include but are not limited to military alliances, state building coalitions, and multi-state defense and security networks. International intelligence cooperation is another pillar of this collective security regime. The states that are members of these regimes will often share intelligence with one

another's respective intelligence services and governments. These foreign intelligence services (FIS) offer their allies and counterpart's intelligence services information that might not be otherwise attained. The United States is home to the most advanced technology in the world. This however does not guarantee that all the intelligence that is gathered is accurate. The use of signals intelligence (SIGINT) is obviously an important part of intelligence gathering and analysis. But the U.S. can not be everywhere and often comes up against numerous obstacles where they do have a presence. Employing foreign intelligence officers for example will help bridge the intelligence gap that exists between the capabilities of U.S. intelligence and the intelligence that they actually get. Intelligence cooperation has many obvious benefits, but there are also many risks involved. Cooperation means two or more parties working together. The cooperation is diminished if one party defects from the agreement. Another issue is priority. A security issue may dominate the concerns of one country while not the concerns of another. Because the latter is not focused on a particular threat, any pertinent information may go overlooked. Furthermore, there is that prospect that the cooperation could actually lead to a security crisis within the relationship. If one country shares its information with another country, the former is at risk of possibly sharing too much information and allowing a foreign government access to its most heavily guarded state secrets. The purpose of this article is to examine the costs and benefits of international intelligence cooperation and how this cooperation fits into the theoretical framework of international relations. I will examine various aspects of the U.S. intelligence community and its relations with foreign intelligence services. The context of the article will be how intelligence cooperation is a vital part of maintaining state security and is now more important than ever in the age of transnational terrorism. The U.S. Intelligence Community As Michael Warner writes in his article, "Intelligence Transformation and Intelligence Liaison", "the primary mission of any intelligence structure is to defend its population and vital interests." In order to understand the importance of international intelligence cooperation it is important to understand the U.S. intelligence community. PGI 2 VOLUME 1, ISSUE 1 — WINTER 2006 The area in which the U.S. has a clear advantage is that of SIGINT, or signals intelligence. The U.S. owns and operates numerous satellites and other highly advanced technological methods of intelligence gathering. The U.S. is highly adept at monitoring land based and cellular communications, email monitoring, and other forms of "chatter" interception. Through the use of satellite imagery, analysts are able to pinpoint terrorist training camps for example. The area of HUMINT, or human intelligence, and other classical forms of espionage have however been harder to capitalize on over the years. Now that we are in the age of globalization, the technology must be able to keep up with the threats. These threats are often facilitated by the globalization of technology and information exchange. The internet, for example, has proven an extraordinarily effective recruitment and educational tool for terrorists. International Intelligence Cooperation Information sharing between international intelligence and security services is nothing new, nor is it a loosely organized and ill-governed association that operates free of oversight. Yes, some of these agreements fall under the unofficial and non-binding gentleman's category, but they are durable and unyielding despite lacking certain basic formalities. These such agreements are formed without the official and proper terms that usually dictate interstate agreements. They are done through their own channels, using their own terms which are largely outside the realm of the tradition political structure: "Intelligence exchange between these organizations is a world within a world, governed by its own diplomacy and characterized by elaborate agreements, understandings and treaties." (Aldrich 737).1 International intelligence cooperation can take many forms. Most often it is part of a bilateral agreement between states. This usually involves

the exchange of liaison officers between the party's intelligence services. Another way is through dual access to intelligence via technological means such as satellite sharing. Here is a brief account of various cooperative intelligence agreements that have been established over the years. The United States has had a cooperative relationship with Israel for decades. This relationship grew during the Cold War when Russian immigrants to Israel provided the Mossad with valuable information about the Soviet Union, which was in turn given to the U.S. This relationship has also been vital to the U.S. in its efforts to monitor the situation in the Middle East. Another type of intelligence cooperation is through multilateral agreements. The intelligence services of the U.K. and the U.S. have had a long and successful cooperative relationship. This is most evident in the formation of the 1948 UKUSA agreement which includes the U.S., the U.K., and also Australia, New Zealand, and Canada. This Anglo-American agreement employs shared satellite technology access between these nations. Also know as the "5 Eyes", the various intelligence services of these states monitor SIGINT. In addition to working with local law enforcement, there is also a high level of intelligence cooperation in the realm of finance. Numerous countries have worked with the U.S. to detect and freeze the assets of terror groups. The Egmont Group was started in 1995 as a way to confront money laundering. Later on the focus shifted to terrorist financing.2 The Berne Group is a security and intelligence working group in Europe that the U.S. is not a member of. The Berne Group holds meetings throughout the year attended by the heads of the various security services in Europe. After 9-11 the Berne Group created the Counterterrorism Group (CTG) of which the U.S. is a part.3Although the U.S. is not a party to the Berne Group, there should be PGI 3 VOLUME 1, ISSUE 1 — WINTER 2006 room for a degree of transatlantic cooperation. Even if the U.S. is only granted something along the lines of observer status, this is one organization that would be worth courting. Intelligence Cooperation and the War on Terror The biggest threats that the U.S. now faces are transnational. These threats include terrorism, drug trafficking, international crime, and the proliferation of WMD. These threats are transnational meaning they know no borders, perpetrators have no return address, and their reach is now global. These threats have a high mobility meaning it is easy to pick up and move around undetected. The threats that operate in weak and failed states are particularly worrisome because there is little domestic monitoring, let alone international. Porous borders, ineffectual governments, and minimal rule of law enable these threats to continue operating on such a grand scale. The lack of restraint these groups and threats have is precisely why internatio nal intelligence cooperation is more important then ever. As has already been discussed, terrorism is a tactic. It is an entity in itself that can not be stopped or prevented by military force alone. Transnational threats require a transnational effort to fight them with even the slightest hope of success; "interests of the EU and the U.S. coalesced and found the expression in the formalization of intelligence agency cooperation in the days after 9/11" (Segell 82). The unilateral actions of the Bush administration are working to undermine this effort. It is true the U.S. has worked with foreign intelligence services in counterterrorism before, but there must be a bigger effort now to include and accommodate foreign intelligence into the domestic counterterrorism sphere. As we have seen in Egypt, Bali, Madrid, and London, terrorist attacks from Jihadist groups are not just isolated to the U.S. Intelligence cooperation is therefore mutually beneficial particularly for states that face similar security threats. It is important that we establish relationships with other intelligence communities and also with other cooperation organizations that the U.S. is not party to. Working with states previously considered hostile or rogue states should also be considered. The U.S. has already worked with Libya and Syria for example in the war of terror. Ignoring and isolating regimes that abuse human rights or are a

security threat themselves will not help the war on terror. These governments are an untapped resource that for the sake of preserving the American political conscience and setting the gold standard for morality, the U.S. government has not utilized. Engaging these governments would be a positive step in the international counterterrorism effort and it will establish relations that can be nurtured in the future. Working with nefarious governments, while tasteless and questionable to some, has more potential benefits than costs. Because many of these states have a terrorist presence, it would make sense to go right to the source. One example is the cooperation between the U.S. and Sudan despite that country's appalling human rights record in Darfur: "The Bush administration has forged a close intelligence partnership with the Islamic regime that once welcomed Osama bin Laden here, even though Sudan continues to come under harsh U.S. and international criticism for human rights violations. The Sudanese government, an unlikely ally in the U.S. fight against terror, remains on the most recent U.S. list of state sponsors of terrorism. At the same time, however, it has been providing access to terrorism suspects and sharing intelligence data with the United States"4 Issues of intelligence cooperation In order for intelligence cooperation to work, there must be an established trust between the governments and intelligence services. Intelligence cooperation amongst the world's intelligence and security services can be viewed as one of the many international regimes that PGI 4 VOLUME 1, ISSUE 1 — WINTER 2006 have become common on the international stage. Within the theoretical framework of international relations, we are able to explain the costs and benefits of intelligence cooperation. The costs of intelligence cooperation can be explained by realism. States operate in an anarchic world. States will act selfishly and cooperation can diminish the states ability to gain leverage over other states. The unilateral and centrist actions of individual states threaten the functionality of these regimes because there are no real regulations to guarantee adherence. The first cost is the risk of defection. If a FIS or state government defects from an agreement, then the other intelligence services will be excluded from that states intelligence. Risk of defection is one of the reasons why realists are dismissive of regimes and institutions. Second, in order for intelligence cooperation to be mutually beneficial to all involved, there must be equal levels of sharing. This relationship is a two-way street. If one intelligence service contributes to the safety and security of another, there must be reciprocity for the relationship to continue and be beneficial. Asymmetrical information sharing is counterproductive and will ultimately cost the withholder valuable information that may negatively affect future prospects for cooperation. A third cost of intelligence cooperation is asymmetrical priorities. Terrorism is a top priority for the U.S. A significant part of its intelligence is directed towards the "war on terror". A FIS cooperating with the U.S. may not view terrorism as a high priority for the security of its own state. Because this state is not focused on terrorism, it will not be considered a security threat and will therefore not be an intelligence priority. This asymmetry allows valuable intelligence to slip through the cracks because a FIS might not be as alert or attuned to certain information as the U.S. would be. This asymmetry can also be found in the legal systems and policies of foreign governments. The policy objectives and legalities that intelligence and security organizations function under vary by country: "International intelligence cooperation presents a delicate quandary as between secrecy and transparency, sovereignty and cooperative security, especially in relation to collaboration among democracies" (Rudner 222). There may be a divergence in the way that intelligence is gathered. Certain services will put more stock in raw data while others focus on the finished product. Many domestic laws also vary and what is legal in one country may not be legal in another. This can be detrimental to a relationship as is the case of the governments of the EU states refusal to extradite criminals and terror suspects to the U.S. who

would possibly face the death penalty. This asymmetrical policy dilemma also means that intelligence services may need to work with a FIS in a state that commits human rights abuses and who would otherwise be shunned by the international community. A fourth cost is the intelligence itself. The U.S. has its share of enemies, many of whom may be operating within the state of one of our allies or intelligence partners. There is of course always the risk that the intelligence that is relayed may be incorrect. However, this problem is magnified by the reliance on foreign intelligence because there is no guarantee this intelligence is being passed along for benevolent purposes. Furthermore, working with a FIS means opening up portions of your own domestic capabilities to a foreign party. Allowing a foreign government or intelligence service access to classified and potentially damaging information causes a security dilemma in itself. This shared intelligence could be used against the U.S. in the future by recruiting double agents to spy for a foreign government from within the U.S. community. An American by the name of Jonathan Pollard was recruited by the Israelis to

provide satellite imagery of Iraq.5 While this intelligence was not used against the U.S., its disclosure was not part of the American-Israeli cooperation agreement. Intelligence services frequently establish liaison relationships. Who is to say that the information being exchanged will not be tainted and used for clandestine operations against their host? Taking this one step further, many intelligence services and governments share satellite technology and often assist cooperation members with SIGINT. Is there any guarantee that our own technology will not be used against us if operated by a foreign government? If a foreign government is allowed access to our technology, we are placing a dangerously high level of trust in potentially damaging hands: "Countries are always concerned that the information that they share could end up in the in the hands of a third party, either accidentally or intentionally" (Bensahel 40) Of course this is all usually done with the FIS of a friendly government, but what is to stop them from walking in once we open that door. While there are clearly many costs to intelligence cooperation, there are also many benefits. By cooperating with other states in a regime or institution, a state will be able to maximize its own gains by reinforcing the gains of others. This will then allow the U.S. to focus on areas where we are able to operate most effectively. For all of the United States' state of the art technology and overwhelming military capability, the U.S. can not thoroughly monitor every country or group that is deemed a security threat. Intelligence cooperation affords a high degree of burden sharing. This should not be viewed as passing off work the U.S. does not want to do, but that in which the U.S. can not do for lack of resources or capability. With a strong military presence in Iraq and Afghanistan, military forces are stretched very thin and most of the U.S. intelligence focus is on these regions. A FIS can pick up the slack in regions where a threat exists, but may not warrant a strong U.S. presence. A second benefit to intelligence cooperation is that a FIS will have access to a region that the U.S. may not be able to infiltrate successfully. A FIS will have a greater chance of working successfully in a potentially hostile region because it is not American. Employing regional specialists and people with a native knowledge of a particular area will have knowledge of local customs and traditions that an American can never have. This knowledge is a particular asset in countries that have a long history of tribalism and adherence to regionally specific norms that are not taught in books or in the classroom. Members of a FIS will be able to go where the U.S. can not. HUMINT is not easy to come by, especially when dealing with a terrorist cell. A FIS officer has a better chance of gaining access to and acceptance from groups that are highly attentive to possible informers. It is these officers that can get by undetected better than an American. Sharing the burden and the ability to gain access to areas where the U.S. can not is part of the comparative advantage that a FIS has over the U.S. It

is because of this advantage that the U.S. should rely on foreign intelligence: "All intelligence agencies enjoy certain comparative advantages. In some cases, these may derive from functional, tradecraft, or technical attribution-largely based on specialization expertise, knowledge resources or technological solutions. In other instances the comparative advantage of intelligence services may derive from geography, where they enjoy a locational advantage, or from a socio-cultural affinity" (Rudner 216). A FIS will have intelligence capabilities that we do not or that we can not utilize to its maximum benefit. Instead of trying to do everything and be anywhere when we obviously can not, it is PGI 6 VOLUME 1, ISSUE 1 — WINTER 2006 more beneficial to U.S. security and the U.S. intelligence community to focus on the areas where they can achieve that maximum benefit. Cooperating with a FIS allows the U.S. to gain the most information possible while not bearing the costs of unnecessary intelligence failures. Because the U.S. will no longer have to focus on a particular region or a specific intelligence gathering operation that yields minimal results and benefits, they can instead divert that attention to areas where they can maximize that intelligence benefit. A FIS is therefore vital to bridging the gaps in American intelligence gathering and analysis. Why should the U.S. waste valuable money, time, and manpower on something that another country can achieve at a lower cost and with better results? Aside from gathering and sharing intelligence with a FIS, the U.S. intelligence community is now in the position to learn from other intelligence services. Terrorism is nothing new to other parts of the world. Europe and Israel have been dealing with terrorism for decades. Working with the intelligence services in Europe, Israel, and other states will provide invaluable lessons in counterterrorism to our intelligence community. Learning how other states have dealt with terrorism and other threats is beneficial to the U.S. because other states will have more direct experience than we do. How has the Mossad dealt with Hamas? How did MI5 deal with the IRA? How did the Spanish handle ETA? What can we learn from the Russian effort to quell the situation in Chechnya? How have the Colombians succeeded in their work with the FARC? How did they fail? The U.S. must keep in mind that as far as terrorist attacks on home soil are concerned, we are the new kids on the block. Why not engage other countries with a record of counterterrorism to educate our intelligence and security communities on the lessons of terror that they have learned? Finding out what has worked and what has not worked abroad will only enhance our own counterterrorism efforts. Providing our intelligence services with a greater opportunity for education with a FIS is one way we could learn from one of our intelligence allies. Not only is working with a FIS beneficial to our own intelligence, but it provides us the opportunity to share and exchange information on intelligence gathering techniques and technology, not to mention the regional and area knowledge we could stand to gain. Lastly, cooperation between an intelligence service and state and local law enforcement can provide another route by which information can be shared. Because law enforcement agencies function under a different set of guidelines and operational directives than an intelligence agency, they will be approaching the security mandate from a different perspective. Bringing in outside resources beyond the intelligence sector, but still related to issues of security and intelligence is one more way to bolster intelligence cooperation and collaboration in detecting and thwarting threats. Integrated cooperation between these two communities will add a new dimension to threat assessment and security management. Conclusion After looking at international intelligence from a cost-benefit perspective, intelligence cooperation is clearly more beneficial than costly. While there are many issues that can make intelligence cooperation problematic, these issues can easily be overcome. In order for cooperation to be effective, there must be some balance in the sharing of intelligence. Establishing a cooperative symmetry is therefore in the

best interest of the parties involved. Of course, given the ever changing state of geopolitics, this relationship can be one sided at times. In order to keep the relationship from deteriorating, counterbalancing the sharing of intelligence with the cooperative partner should be a priority to maintaining the relationship. For example, the use of financial incentives, such as economic aid packages or establishing a trade partnership is one way of enticing a foreign government to cooperate and to help offset any imbalances that may arise. Another way is to provide security and intelligence services to a government that might not have the capacity for protecting itself. PGI 7 VOLUME 1, ISSUE 1 — WINTER 2006 A second way to overcome cooperative issues is to establish and maintain credibility within the global intelligence community. The U.S. must actively signal to their international counterparts that they can and will cooperate effectively. Establishing trust through confidence building is one such step towards building credibility. The U.S. must embrace the fact that we can not do everything ourselves and that what we can do may not achieve the best results. Just because the U.S. has the best technology does not mean it will yield the best intelligence. Knowing where the strengths and weaknesses of U.S. intelligence lie is the key to enhancing intelligence gathering, analysis, and gaining optimum results. Ignoring where the deficiencies are will only harm the ability of the intelligence community to act effectively and efficiently. Working with a FIS to bridge intelligence gaps and pick up what may fall through the cracks is the way to achieve optimum results and enhance our own intelligence capabilities. Intelligence cooperation is nothing new, but it is now more apparent than ever before just how important these cooperative relationships can be. Working with a FIS is one of the best ways to gather intelligence. They are able to penetrate regions where we can not. A FIS is better equipped to deal with local populations that are hostile to the U.S. They can get through undetected and will have a more successful rate of cultural and societal immersion than we could ever have. A FIS will have native knowledge of regional customs and a higher degree of appreciation for these customs. They will be able to operate within these cultures far easier than we can and will therefore have the ability to gather intelligence that we could not. Recognizing the utility of regional specialists and FIS officers will only add to the intelligence gathering and analytical process, thus augmenting U.S. intelligence capabilities. This in turn will enhance threat assessment abilities which will improve our efforts in maintaining state security. Many of the documents pertaining to intelligence cooperation remain classified. Therefore one can only assume and make predictions about some of these relationships. But the data that is available indicates that these cooperative relationships are better to have than not. In the case of international intelligence cooperation, the uncertainty and the costs are more than worth the risks. Notes 1. See "Transatlantic Intelligence and Security Cooperation" 2. See Rudner 3. See Aldrich "Transatlantic Intelligence and Security Cooperation" 4. Silverstein, Ken. "Official Pariah Sudan Valuable to America's War on Terror" Los Angeles Times April 29, 2005. A.1. Online. ProQuest. 5. See "Mossad-CIA Cooperation" by Ephraim Kahana Bibliography 1. Segell, Glen M. "Intelligence Relations Between the European Union and the U.S." International Journal of Intelligence and Counterintelligence 2004, 17:1, 81-96. Online. Taylor and Francis. March 21, 2006. 2. Bensahel, Nora. "A Coalition of Coalitions: International Cooperation against Terrorism." Studies in Conflict and Terrorism. 2006, 29:35-49. Online. Taylor and Francis. March 20, 2006. PGI 8 VOLUME 1, ISSUE 1 — WINTER 2006 3. Lefebvre, Stephane. "The Difficulties and Dilemmas of International Intelligence Cooperation." International Journal of Intelligence and Counterintelligence. 2003, 16:4, 527- 542. Online. Taylor and Francis. March 20, 2006. 4. Kahana, Ephraim. "Mossad-CIA Cooperation." International Journal of Intelligence and Counterintelligence. 2001, 14:3, 409-420. Online. Taylor and Francis. March 14, 2006. 5.

Warner, Michael. "Intelligence Transformation and Intelligence Liaison". SAIS Review. Winter 2001, 24:1. Online. Proquest. March 28, 2006. 6. Aldrich, Richard J. "Dangerous Liaisons." Harvard International Review. Fall 2002, 24:3, 50-55. Online. ProQuest. March 21, 2006. 7. Aldrich, Richard J. "Transatlantic Intelligence and Security Cooperation." International Affairs. 2004, 80:4, 731-753. Online. March 20, 2006. 8. Rudner, Martin. "Hunters and Gatherers: The Intelligence Coalition Against Islamic Terrorism." International Journal of Intelligence and Counterintelligence. 2004, 17:2, 193- 230. Online. Taylor and Francis. March 21, 2006. 9. United States. Office of the Director of National Intelligence. The National Intelligence Strategy of the United States of America. Washington: October 2005. Online. www.globalsecurity.org. March 14, 2006. 10. Fessenden, Helen. "The Limits of Intelligence Reform." Foreign Affairs. Nov/Dec 2005, 84:6, p.106. Online. ProQuest. March 21, 2006. About the author Marta Sparago is currently a second year Masters student at the Center for Global Affairs at New York University. Her areas of interest are terrorism and national security. Ms. Sparago also holds a BA in History from Columbia University.

PGI 1 VOLUME 1, ISSUE 1 — WINTER 2006 Information Technology for Developing Countries: One Laptop Per Child by Wayne Moses Burke "Information technology ... is a powerful force that can and must be harnessed to our global mission of peace and development. This is a matter of both ethics and economics; over the long term, the new economy can only be productive and sustainable if it spreads worldwide and responds to the needs and demands of all people. I urge everyone in a position to make a difference to add his or her energies to this effort." 1 -Kofi Annan One Laptop Per Child's (OLPC) self-stated goal is "to provide children around the world with new opportunities to explore, experiment, and express themselves."2 They aim to accomplish this by producing a feature-rich laptop that is inexpensive enough to be purchased en masse by governments and handed out to children, not unlike textbooks are today. The project "is based on 'constructionist' theories of learning pioneered by Seymour Papert and later Alan Kay, as well as the principles expressed in Nicholas Negroponte's book 'Being Digital'."3 These theories hold that people learn more quickly and fully when they are allowed to apply their own creative and intuitive logic to a situation. Computers provide a forum for creativity and problem solving that is structured and logical. Allowing the laptop to be owned by the child creates a familiarity that does not come with only using it at school. "One does not think of community pencils—kids have their own. They are tools to think with, sufficiently inexpensive to be used for work and play, drawing, writing, and mathematics. A computer can be the same, but far more powerful."4 Experimentation with constructionist theories has shown that they are applicable independent of a child's background. For example, when computers were first introduced into an elementary school in Dakar, Senegal, "The children from this rural, poor, and underdeveloped West African nation dove into these computers with the same ease and abandon as any child from middle-class, suburban America."5 OLPC is an outgrowth of MIT's Media Lab and is based in Delaware. Its first public announcement came on November 16, 2005 when OLPC Chairman Nicholas Negroponte unveiled a prototype with UN Secretary-General Kofi Annan at the World Summit on Information Society in Tunis. Kofi Annan referred to it as an "expression of global solidarity."6 Not long after that, Negroponte signed a Memorandum of Understanding with the United Nations Development Project (UNDP) Administrator Kemal Dervis. Under the agreement, UNDP will utilize its connections and resources in the developing world to help manage delivery of the laptops and the learning resources necessary to make

effective use of them.7 At this point, Brazil and Thailand are prepared to place orders as soon as a working prototype is available. In addition, China, India, Argentina, Egypt, and Nigeria are expected to follow suit.8 OLPC is striving to have the initial run distributed to a broad geographic and cultural dispersion in order to prove the program's universal applicability. PGI 2 VOLUME 1, ISSUE 1 — WINTER 2006 Their first run is due at the end of this year or the beginning of 2007. This project is evolving rapidly and interested readers should consult the OLPC website directly athttp://laptop.org or the site dedicated to news on the project at http://olpcnews.com. In order to design and produce this technologically sophisticated laptop at a minimal price, while making it reliable, durable, theft-resistant, and low power consumption, OLPC is working with some of the biggest names in the computing industry. Initial funding for the project was provided by Advanced Micro Devices (AMD), Brightstar, Google, News Corporation, Nortel, and Red Hat, each providing $2 million.9 AMD, Intel's biggest competitor, is supplying the chips for the laptops and Red Hat is creating a version of its Linux distribution designed specifically for the OLPC hardware. Similarly, Taiwanese firm Quanta Computers was chosen as the manufacturer for the project. It is the largest manufacturer of laptops in the world, counting among its clients Dell, HP, and IBM, and offered to devote significant research facilities towards the project.10 The laptop is not a stripped down version of a modern laptop. It is comparable with laptops sold in the developed world in most regards, with a few exceptions and a few unique improvements. Its processor and RAM are relatively at the lower end of the scale for modern laptops (366MHz and 128Mb, respectively), but this is made up for by the customization of the operating system so as to maximize utilization of the processing capacity. It has wireless networking with the ability to recognize when other OLPC laptops are in the area and automatically establish a network. It has USB ports, built-in speakers and microphone, as well as jacks for external speakers and a microphone. It is targeted to weigh less than 2.2 pounds, on a par with the lightest laptops available on the market today.11 The one aspect of the design that could be considered sub-par in comparison is simultaneously unique in its implementation. Instead of a standard hard drive, the OLPC laptop will have 512Mb of flash memory, like that used in a USB drive. This is significantly less than what is available in modern laptops, but increases the durability of the system because there are no moving parts. PGI 3 VOLUME 1, ISSUE 1 — WINTER 2006 The display and touchpad are both particularly novel implementations of what have become standard elements on modern laptops. The display will operate in two different modes, one a back lit color mode, similar to a normal laptop or LCD computer screen, and the second a black and white, low-power "E-book" mode. This second mode will not have a back light of its own, but instead will be a reflective display wherein ambient light or sunlight will actually improve the ability to see what it is on the screen, creating an experience that is more like reading from paper. The touchpad of the device will support pointing, scrolling, and possibly graphical input, eg for drawing or writing. It will be extra wide to allow the children to learn writing skills directly on their laptops. While the design has not yet been finalized, the chassis will be rugged and have a very child-oriented look and feel. This is to discourage theft by creating a stigma against it's usage by adults. The OLPC project differs from past attempts to introduce computers to developing countries in several remarkable ways: it focuses on education over functionality and is rooted in personal ownership of the unit; it relies on government for purchasing, not communities; and it uses only open source software. Previous attempts12 have relied on a village pooling its resources in order to purchase a single computer. This machine would then be useful to all of the villagers, each in turn. While this may seem sound in theory, in practice it does not work because it expects members of a village to

understand the utility of owning a computer and spend a significant sum of money on it, prior to having first hand experience of it for themselves. There is a disincentive within the system inhibiting its success. In addition, this communal system keeps the computer from becoming personal to the majority of its users, much as a public space is owned by all, and therefore owned by none. OLPC has designed their system to emphasize personal ownership and comfort with the machines as necessary elements of effective learning. First of all, they rely on governments to provide the OLPC laptops directly to the children so as to avoid communal ownership. Secondly, they insist on open source software, i.e. full access to the code of all programs that are included on the machine. This allows the children to see examples of programming and become familiar with how software works on the back end. This is where the impact of constructionist theories is most obvious in the plan. The available source code encourages experimentation and greater understanding of computers by allowing the children to explore using their own creative and intuitive logic. This lays the foundation for a computer literate society that can utilize the technology to solve local problems, without outside help or interference. Critics of the OLPC project misunderstand this educational aspect. The criticism comes in three main forms: 'bad solution to internet connectivity,' 'people want real computers,' and 'they don't need computers, they need food.' The first actually originates with Bill Gates. He contends that laptops are a bad idea and that the answer is smart cell phones. He points out that Africa is booming with the cell phone market, and that this is the easy way to provide internet access to developing countries.13 The difficulty with this argument is that OLPC's goal is not about providing internet access, it is "to provide children around the world with new opportunities to explore, experiment, and express themselves."14 While cell phones continue to evolve, they simply do not provide the educational opportunities that laptops do. They have small screens, limited keyboards, and fixed functionality. In addition, any phone that has the capabilities of the OLPC laptop would most likely cost more than the laptop does. Dell and Intel both claim that the OLPC laptop is such a stripped down model that it will not be attractive to the people that are expected to use it. Dell makes the point that "[i]t's important PGI 4 VOLUME 1, ISSUE 1 — WINTER 2006 that a computer prepare students for the applications they'll be using after they get out of school."15 While there is validity to this argument, it is too narrowly focused. While the OLPC laptop will not contain commercial software such as Microsoft Office, it will contain programs with similar functionality. The critical aspect of the project is for children in developing countries to establish the same familiarity with computing technology that is second nature to children in developed countries. Operating systems and word processors are increasingly similar to one another in look and feel and the transition from one to the next is increasingly trivial. The chairman of Intel agrees with Dell, and critically states, "I think a more realistic title should be 'the $100 gadget'. The problem is that gadgets have not been successful."16 This criticism displays an ignorance of the OLPC laptop's features and falsely lumps it in with past, failed attempts to bring low-cost computer solutions to the developing world.17 The third criticism that the OLPC project faces concerns the legitimacy of providing computers to people who are starving. The following quote is a particularly colorful example: Sure laptops are cool. But let's face facts folks. Few starving people need a computer worse than food and clothing... If they give these $100-125 PCs to the poor, 80%+ will certainly be sold for things which are more important to real life (food, clothing, shelter, and probably sex, drugs, and booze too)...18 This criticism displays an even shallower understanding of the project than the previous two, but is important to mention because it is the most common one heard. In addition to misperceiving OLPC as a technology project, this criticism relies on several other assumptions that are based on insufficient knowledge. First is

that all citizens of the developing world are starving. This is clearly not true. On the contrary, the list of countries that are first in line for implementation, e.g. Brazil and China, are among the fastest growing economies in the world. Secondly, it misses the importance of technology beyond its value as a "cool toy." It fails to acknowledge the improvements that technology has brought to the developed world and the burden that this growing technology gap imposes on the developing world. Thirdly, this criticism does not acknowledge the value of empowering individuals to use modern tools to solve their own problems. And finally, the accusation that the OLPC laptops will simply be sold displays a lack of familiarity with the design of the system and the attempts made to create a stigma against its being used by adults. In short, the criticisms are based largely on misperceptions about the nature of the project or the nature of the problem that it intends to deal with. This leads to the question, "What will go wrong?" There are two factors that may lead to unsuccessful completion of the project. The first is technical failure of the first run of laptops. Should there be something critically wrong with the design or its manufacture, this could deflate the legitimacy of the product in the eyes of the world and thus end its opportunity for proper implementation. Given the quality of the partners involved in design and manufacture of the project, and the attention that is being paid to detail on each successive prototype, this seems unlikely but always remains a possibility. The other potential for failure comes from the consistency of the governments who will implement this solution. The project requires a long term commitment to improve education in order to create a population that can solve its own problems. Short term implementation will not accomplish this. It could even be argued that in order to be effective, OLPC should be encouraging governments to maintain their participation, while increasing accessibility to education for their populace. It could also be argued that OLPC should become involved in increasing student attendance and working with governments to maintain those levels. These are all enormous problems, and their causes differ from country to country. The OLPC project is an education project because it provides an educational tool. It does not attempt to PGI 5 VOLUME 1, ISSUE 1 — WINTER 2006 define how that tool should be used. Just making the technology available to the masses of schoolchildren will change the educational systems in the countries that implement the project. Solving the larger problems then must fall to those with expertise in the field, from UNDP to the governments to the teachers in the classroom. The One Laptop Per Child project aims to make a great contribution to the world. It is not great because of the size or the cost or the features of the laptop that it is working so hard to produce. It is great because of the increased potential that it will bring to each child that receives a laptop. This project is not about creating opportunities, it is about making people able to understand and take advantage of the opportunities that are available to them. The results will be fascinating to witness. Notes 1. Final paragraph of Kofi Annan's IT Challenge to Silicon Valley, November 5 2002, United Nations Information and Communication Technologies Task Force, March 6 2006.
http://www.unicttaskforce.org/sg_challenge.html. 2. One Laptop Per Child, March 7 2006.
http://laptop.org/index.en_US.html. 3. One Laptop Per Child – Mpedia – Educational Content section, One Laptop Per Child, March 7
2006.http://pedia.media.mit.edu/wiki/One_Laptop_per_Child#Educational_content. 4. One Laptop Per Child – FAQ, One Laptop Per Child, March 6 2006.
http://laptop.org/faq.en_US.html. 5. Nicholas Negroponte, "Hard Fun," Being Digital (Alfred A. Knopf, Inc., 1995), March 7 2006. http://archives.obs-
us.com/obs/english/books/nn/ch16c01.htm. 6. BBC | UN debut for $100 laptop for poor, November 17 2005, BBC News, March 7 2006.

http://news.bbc.co.uk/1/hi/technology/4445060.stm. 7. UNDP Newsroom - $100 Laptop Project Moves Closer to Narrowing Digital Divide, January 28 2006, United Nations Development Program, March 7 2006.http://www.undp.org/dpa/pressrelease/releases/2006/20060128-laptop.shtml. 8. One Laptop Per Child – Mpedia – Launch Plans section, One Laptop Per Child, March 7 2006 http://pedia.media.mit.edu/wiki/One_Laptop_per_Child#Launch_plans. 9. OLPC: Quanta Computer Inc. to Manufacture $100 Laptop, December 13 2005, One Laptop Per Child, March 7 2006. http://laptop.org/2005-1213-olpc.html; WSJ.com – The $100 Laptop Moves Closer to Completion, November 14, 2005, The Wall Street Journal Online, March 7 2006. http://online.wsj.com/public/article/SB113193305149696140-442o71jo_IlBrLpyUeeOdsqDs7E_20061113.html?mod=tff_main_tff_top. 10. OLPC: Quanta Computer Inc. to Manufacture $100 Laptop 11. Hardware Specifications – MLPedia, One Laptop Per Child, March 7 2006. http://pedia.media.mit.edu/wiki/Hardware_specification. 12. For more information, learn about the Simputer at http://www.simputer.org/ or PCtvt at http://www.post-gazette.com/pg/04264/382010.stm (accessed Oct. 7, 2002). 13. USAToday.com - Gates sees cellphones as way to help Third World, January 31 2006, USA Today, March 6 2006. http://www.usatoday.com/tech/columnist/ kevinmaney/2006-01- 31-gates_x.htm. PGI 6 VOLUME 1, ISSUE 1 — WINTER 2006 14. One Laptop Per Child 15. WSJ.com – The $100 Laptop Moves Closer to Reality. 16. Wired News: Intel: Poor Want 'Real' Computers, December 9 2005, Wired News, March 7 2006. http://www.wired.com/news/technology/0,1282,69797,00.html?tw=rss.TEK. 17. eg,Simputer and PCtvt, as mentioned above. 18. lojack_skjeij, "Apparently cancer, HIV, and literacy have already been wiped out.," (2005), March 7 2006. http://news.zdnet.com/5208-9584-0.html?forumID=1& threadID=15228&messageID=303531&start=-1 Bibliography 1. Annan, Kofi. "Kofi Annan's IT Challenge to Silicon Valley." November 5 2002. United Nations Information and Communication Technologies Task Force. March 6 2006. http://www.unicttaskforce.org/sg_challenge.html. 2. "BBC | UN debut for $100 laptop for poor." November 17 2005, BBC News. March 7 2006. http://news.bbc.co.uk/1/hi/technology/4445060.stm. 3. "Hardware Specifications – MLPedia." One Laptop Per Child. March 7 2006 http://pedia.media.mit.edu/wiki/Hardware_specification. 4. lojack_skjeij. Apparently Cancer, HIV, and Literacy have Already been Wiped Out., 2005. March 7 2006 http://news.zdnet.com/5208-9584-0.html?forumID=1& threadID=15228&messageID=303531&start=-1. 5. Negroponte, Nicholas. "Hard Fun." Being Digital. Alfred A. Knopf, Inc., 1995 March 7 2006 http://archives.obs-us.com/obs/english/books/nn/ch16c01.htm. 6. "OLPC: Quanta Computer Inc. to Manufacture $100 Laptop." December 13 2005, One Laptop Per Child. March 7 2006 http://laptop.org/2005-1213-olpc.html. 7. "One Laptop Per Child." One Laptop Per Child. March 7 2006 http://laptop.org/index.en_US.html. 8. "One Laptop Per Child – FAQ." One Laptop Per Child. March 7 2006 http://laptop.org/faq.en_US.html. 9. "One Laptop Per Child – Mpedia – Educational Content section" One Laptop Per Child. March 7 2006 http://pedia.media.mit.edu/wiki/One_Laptop_per_Child#Educational_content. 10. "One Laptop Per Child – Mpedia – Launch Plans section." One Laptop Per Child. March 7 2006 http://pedia.media.mit.edu/wiki/One_Laptop_per_Child#Launch_plans. 11. "UNDP Newsroom - $100 Laptop Project Moves Closer to Narrowing Digital Divide." January 28 2006, United Nations Development Program. March 7 2006 http://www.undp.org/dpa/pressrelease/releases/2006/20060128-laptop.shtml. 12. "USAToday.com - Gates sees cellphones as way to help Third World." January 31 2006, USA

Today. March 7 2006 http://www.usatoday.com/tech/columnist/ kevinmaney/2006-01- 31-gates_x.htm. 13. "Wired News: Intel: Poor Want 'Real' Computers." December 9 2005, Wired News. December 9 2005 http://www.wired.com/news/technology/0,1282,69797,00.html?tw=rss.TEK. PGI 7 VOLUME 1, ISSUE 1 — WINTER 2006 14. "WSJ.com – The $100 Laptop Moves Closer to Reality." November 14, 2005, The Wall Street Journal Online. March 7 2006 http://online.wsj.com/public/article/SB113193305149696140-442o71jo_IlBrLpyUeeOdsqDs7E_20061113.html?mod=tff_main_t. About the author Wayne Moses Burke is a Master's degree candidate in Global Affairs at New York University. His interest is in how international policy can improve opportunities for individuals. He is currently focused on studying development programs, the role of the United States in the international system, and the way in which governments, businesses, and nongovernmental organizations interact.