Welcome to the first issue of Komaza.

What exactly is Komaza, you might ask? Well, Komaza is a Swahili word that means “to encourage development and aid growth.” Our publication team feels that students involved in international development embody this idea because they help make substantial change in the world by getting to know and working with partners abroad. We hope that by sharing their stories, we will promote further international development.

I first wanted to get involved in international development projects over a year ago. However, I found the wide variety of resources and opportunities available at MIT overwhelming and intimidating for a newcomer on the scene of international development. I wanted an interesting and helpful way to tie some of the resources and student stories together through a fun magazine, which grew into Komaza.

As a student group and a publication, we’re still new, but we’re excited about this initial step! Our hope is that even from this first issue, you will be encouraged, entertained, and inspired.

If you have any questions or comments, feel free to email us at komaza-official@mit.edu. Thanks for reading – we hope you enjoy.

Sincerely,

Bina

PS. A huge shout-out to Leadershape 2008 (Fresh!) for being awesome, and to Jed and Emily for being there, always working alongside me. On behalf of the staff of Komaza, thank you to The Tech (especially Austin) for your advice and help!

Phil 4:13
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During our three weeks in Tanzania we tried to pick up as much Kiswahili, the local language, as possible. When we all began studying the language, we started with little knowledge—although, thanks to The Lion King we already knew a few words and phrases such as “hakuna matata” and “simba,” which mean “no worries” and “lion,” respectively.

So here’s what we learned: next time you want to mildly insult your friend, you can call them a “taco kishwa,” or “butt head.” Yes, that’s right, “taco” means “butt” in Swahili. So when you want to go to Taco Bell, remember that. And maybe you’re a fan of Jamba Juice. Our friends in Tanzania informed us that “jamba” means “FART” in Swahili!

However, the words that we used most often were “pole” (poh-lay), meaning “sorry,” and “asante” (ah-sahn-tay), meaning “thank you.” “Sana” means “very,” so actually we said “pole sana” or “asante sana” most often. “Hamna shida” also became somewhat of a mantra of Timu TZ, or Team Tanzania, meaning “no problem.” (But depending on the situation, this might jokingly become “mkubwa shida” or “big problem.”)

In Tanzania, we learned Kiswahili through a variety of sources. One of our D-Lab trip leaders, Jodie, made us cheat sheets that helped us learn the numbers (moja, mbili, tatu, nne, tane, sita, saba, nane, tisa, kumi...) and other extremely useful phrases. During the numerous layovers on our trip, we would sit in the terminal with phrase books and try to study. Some of our favorite findings were funny phrases in the romance section, such as “tulia, simba!” which means “easy, tiger!”

We also learned a lot from the community partners we worked with. Often we would find ourselves with paper and a pen, trying to translate all the words that we itched to say and writing them down so we could remember. We even learned slang (like “mzuks”, which is a shortened version of the word for “foreigner”) from the local students.

Learning Kiswahili was so much fun that we couldn’t stop saying phrases when we got back to MIT. We still chuckle every time we hear Taco Bell and Jamba Juice, and often find ourselves muttering “pole sana” when we bump into someone in the hallway—only to come to the sad realization that we are no longer in Tanzania.

Now you are educated in some of the ways of Kiswahili. So remember, next time someone tells you, “Mambo,” reply with “Poa”, or “I’m cool.” And you are cool, since now you know Kiswahili!
Despite major efforts to dissolve sex trafficking networks, millions of women and girls worldwide are still sexually exploited and abused. Even if these women can escape their brutal fate, they become stuck in a cycle of poverty and homelessness that often forces them into prostitution.

In Cambodia, a lack of education and a weak legal infrastructure also contribute to this devastating situation; however, Shirin Kasturia ’10 has done her part to help stop these women’s downward spiral...

Last summer, Shirin traveled to Cambodia for six weeks to work closely with an organization called Acting for Women in Distressing Situations (AFESIP). AFESIP is a local NGO that offers shelter, protection, and vocational training for women and girls who have been rescued from trafficking, who have willingly left prostitution, or who are at high risk of being trafficked or sold.

“Organizations such as AFESIP are slowly helping the problem subside,” says Shirin, “but there is still a lot of progress to be made.”

To help with the rehabilitation and education process, Shirin installed eight donated computers in AFESIP’s three shelters in the Phnom Penh, Siem Reap, and Kampong Cham provinces of Cambodia. While still in the United States, she was easily able to find enthusiastic supporters and collect donated computers.

But the process of getting them to Cambodia and retrieving them from customs was another issue. “The customs and excise department in Cambodia was both frustrating and disheartening. While I expected a certain level of corruption, I had no idea how extreme it would be. Rather than seeing me as someone trying to help and invest in their country, the customs officers saw me as a foreigner who had more money they could exploit.”

However, once the computers were cleared, the new technology was met with much enthusiasm and excitement, making the arduous process very much worth the effort.

In addition to simply bringing them the computers, Shirin taught the girls basic computer skills, such as typing in both Khmer (the local language) and English, as well as how to use the internet and educational software. Shirin also set up a program that allowed the girls to teach their peers what they had learned. In doing so, she ensured that the project was sustainable, an important element of international development projects.

All in all, Shirin was pleased by how the project turned out. “Working in Cambodia was different from anything I had experienced before. While, initially I found it frustrating and difficult, at the end of the trip I was not ready to leave all the girls who I had met and worked with.”

Now, she just hopes that the computer labs can have a positive, lasting impact. Despite the adversity and challenges existing around them, she hopes these women can overcome their pasts and learn to be happy again. Through the use of technology and education, these women can begin to take a more active and productive role in society and perhaps even forget the horrible things they have experienced.
Owning a business empowers people to think creatively, to be responsible, and to develop their economy and sustain themselves. Many agree that helping others run businesses is a type of charity that hasn’t been exhausted, and the following stories reveal a glimpse of microfinancing and business training needs abroad.

Imagine that today, you’re graduating from MIT. It’s been four long and tough, yet enjoyable, years. You walk up proudly to get your diploma with a sense of accomplishment. You then walk from Killian Court straight into the nearest McDonald’s, and pick up a job application for store manager.

This situation is essentially what Nima Veiseh ‘07 found during his trip to the Middle East this past February.

In Iran, Nima would walk into fast food restaurants or into shops selling gold or pirated software, and realize they were owned by “MIT quality engineers” who were “not working at their potential.”

These engineers have definitely come out of school at the top of their class. High school graduates in Iran take a test which determines their future, in place of the college application process seen in the United States. “1.5 million people take a big test, and the top 20,000-50,000 [ranked] get to study engineering.”

But unfortunately, not many of those 20,000-50,000 ever use their engineering skills because job creation is a problem in Iran, as in many areas of the world. Before new engineering positions can be created, there are “political barriers that need to be eroded,” says Nima. Additionally, few trained engineers currently have the funding or skills to run their own businesses.

Nima works in the Microloan Foundation in Boston, which, through microfinancing, provides financial aid and capital to those who need money to start their own business. Once such entrepreneurs make enough profit, they pay back the foundation. Nima was in the Middle East as part of his job to see how microfinancing could help the people there.

The goal of microlending is “giving people potential,” Nima explained. “Engineers should be programming; they should be designing; they should be furthering science and technology.”

Many cultural factors lead to successful microfinancing because each country and each situation is unique. The same business practices used in New York City, where there is a sustainable economy with many layers of prosperity, couldn’t be transplanted to Iran due to educational, monetary, and religious differences from the US.

Things to consider before starting a microfinancing project abroad:

1. What is the culture like?
   Different cultures have different languages, trust systems, business systems, and acceptable business processes.
   - In Bangladesh, a large number of women work in textiles.
   - In Africa, women make crafts.
   - In Mexico, artisans make clay pots.
   - In Panama, there are many travel agencies.

2. How can I stimulate the economy and make it sustainable?

3. What do I need to do to make sure that the right amount of money goes to the right people in such a way that they’ll accept it and they’ll trust me?

This past summer, Rebecca Gould ’11 went to Ecuador, driving down bumpy dirt roads and riding in little rickshaws, in order to teach women in the town of Pascuales ways to run businesses. The women were members of an organization called Frente Femenina, which placed much importance on training and educating the women to be stronger members of their community.
Rebecca, along with the other members of her team (Lauren Vegter ’11, Juan Diaz ’11), handled the business-related aspects of the women’s education.

What sorts of things does one teach to Ecuadorian women who have little education about business to begin with? The most important lessons included those about saving money, having better marketing strategies, and utilizing locations.

For example, opening a grocery store in a home probably wouldn’t be successful, but this was not necessarily common knowledge for the women. The team also taught the women about the importance of being on time by keeping track of attendance and timeliness, and then awarding the women accordingly with certificates marked with different colors.

The women also had a few things to teach in return. Sometimes after class, they all had a dance party, where the women “loved shaking their hips” as they taught the team how to salsa. Rebecca also appreciated the close bonds she made with the women, and she realized how much the women took care of the team and each other.

“Most of the women we worked with were in their thirties and forties, and a lot of them didn’t graduate from high school, [but] they were all eager to learn,” Rebecca explained. The excitement Rebecca gained from the project and pride for the women that she felt were evident as she listed the businesses that the women aspired to build: restaurants, arcades to rent games, little grocery stores, or electronics stores for telephones, computers, or DVDs.

The week ended on a sweet note when each of the women had their pictures taken with a certificate of completion and a graduation cap. For many, this was the only graduation ceremony that they had ever been a part of.

I went to Chennai through the MISTI India program during the summer after my sophomore year. My interest in microfinance drew me to a company called IFMR, or *Institute for Financial Management and Research*. During the time I was there, IFMR was rapidly growing, and somehow functioning in the absolutely chaotic business environment of Chennai.

IFMR was set to produce 200 microfinance branches throughout South India in the coming year, and I was lucky enough to help this expansion. My job was to create training materials for the regional officers that ran the village branches in Tanjavur, so I was able to make trips to the villages while also experiencing urban Chennai.

The challenges faced by the village microfinance branches were many in number, and how IFMR addressed them was incredibly fascinating. I learned what it is like to expand an organization to a place where infrastructure does not exist. Internet and electricity in Tanjavur were both expensive and sporadic, and Microsoft Office was thought to be an expensive piece of software. Therefore, I needed to create an offline version of software for regional offices to enter customer information. By taking on the tasks that I did, I found myself addressing the infrastructural issues directly.

When I asked other interns about their experiences in Chennai, they would answer, “Where do I begin?” with smiles on their faces—but I had no understanding of why. But sooner than I ever expected, I found myself integrated into the hustle and bustle of the city, and I spent all of my spare time with fellow interns and young college students in the area.

We befriended the local grocery store guy on Harrington Road, found ourselves to be everyday customers at the local juice stand, and even named a stray dog that we often saw in the area. We tried countless restaurants, took a liking to haggling with auto-rickshaw* drivers, and often found ourselves laughing at the ridiculousness of our experiences in Chennai. We walked through knee deep puddles of water to get home and spent hours on the roofs of our apartment buildings, only to get hundreds of mosquito bites in the process. We spent many hours on beaches, hanging out with local college students and singing along to guitars. We even found ourselves playing silly games like Jenga whenever we had a table and some free time.

By the end of my month in Chennai, when new interns arrived and asked me about the city, I often found myself answering, “Where do I begin?”—only this time I understood why.

* Auto-Rickshaws are three-wheeled motor vehicles found throughout India that serve as mini-taxis.
After celebrating New Year’s while flying over the Atlantic, we landed at Kotoka International Airport in Accra, Ghana on January 1st. We stepped off the plane to find Accra already at a steamy 87°F, a drastic change from the snow we had left behind in New York.

We met up with the rest of the Unite For Sight (UFS)-Northern Region volunteers in the city. There was Esi, a medical student originally from Ghana; Matt, a recent graduate who was the cinematographer for our trip; and Brian and Moe, college undergraduates like me.

The very next day we traveled north all day by pickup truck. The trip took over 12 hours because many of the roads were unpaved. By nightfall, we made it to our humble bungalow house just outside of Tamale, the capital of the Northern Region. During the drive, we were able to see the gradual change in climate and surroundings as we made our way closer to Tamale. The savanna air was significantly drier and dusty with temperatures easily soaring above 100°F during the day.

We had dinner that night with Dr. Thomas Baah, the ophthalmologist we would be working with, and Dr. Seth Wanye, who works at the Tamale Teaching Hospital. Currently, Dr. Wanye is the only permanent ophthalmologist for the two million people in the Northern Region.

Months prior to our arrival in Ghana, Dr. Baah had started Ghana’s newest eye clinic, Save the Nation’s Sight. This clinic focuses on outreach screenings and cataract surgeries in villages where eye care is rare or nonexistent. We were excited to be joining his large outreach team.

The team consisted of Ghanaian optometrists and ophthalmic nurses who screened for common problems such as allergies, infections, cataracts, trachoma, and glaucoma. In addition, there were publicity liaisons, as well as volunteers to register patients, test visual acuity, and dispense over the counter medications.

Every day we headed to a new village farther and farther away from our “home base” in Savelugu. Volunteers were responsible for publicizing the screenings in villages we would be traveling to the next day. They also transported patients who required surgery, which were free thanks to the UFS volunteers’ fundraising efforts prior to arrival in Ghana.
Above: Here, Kingsley is using the “finger counting method” to test for visual acuity because the patient’s eye sight is significantly reduced to the point where he can’t see the letters on the E-chart.

Right: Patients waiting for their post-operation check-up. According to Jennifer Staple, the founder of UFS, the life expectancy of vision impaired individuals in developing countries is a third of that of their unimpaired counterparts. In a culture where every family member contributes to the family’s livelihood, the quality of life for the affected individual and his family is also significantly impacted.

Meanwhile, Dr. Baah and Dr. Wanye set up camp at the local Savelugu Hospital to perform at least forty cataract and trachoma surgeries a day.

Even though we didn’t have any days off, we still had some down time in between our duties to make friends with the locals. We really got to know the kids who lived near our bungalow—Matt even served as an impromptu soccer coach for the day when the boys mentioned that a rival team was coming to town for a game.

Before we left, Dr. Baah presented the UFS volunteers with traditional Ghanaian clothing. In return, we thanked Dr. Baah for his hospitality with Ghanaian chocolate and kente cloth, a type of interwoven silk fabric. On my journey back home, I thought about my great educational and cultural experience—overall, the trip was great introduction to health issues and health-related non-profit work in developing countries.

Dr. Baah performing cataract surgery on a young patient. In countries like the US, cataracts are really only seen in older patients, but here, because of sun damage and poor eye health, people of all ages were coming in with very dense cataracts (full vision loss). Cataract surgery is unique from other surgeries in that the difference (in vision) is noticed by patients almost immediately after post-operative care.
Large numbers of patients were usually already waiting for us when we arrived.

Schoolgirls returning home with their lunchboxes on their heads.

The nurses needed a dark place to be able to see the back of patients’ eyes, so they often did their job inside the chief’s hut.

Large numbers of patients were usually already waiting for us when we arrived.

Brian sporting his new tan (made from not sun, but good ol’ red Ghanaian dirt) after our first day of work in the villages.
Kofi and Abdul-Rahim helping us figure out where the end of the playing field will be after picking teams for a soccer match.

These boys wanted to show me that they could write their names.

The kids caught onto what a high-five is after Moe and I demonstrated.

The village kids were always initially hesitant around me, but my trusty bottle of bubbles that I packed in my suitcase at the last minute seemed to do the trick.

My team received a guinea fowl bird and four yams as a thank you gesture from the village chief for our efforts.
Part of the thrill of traveling abroad is the unexpected, the crazy occurrences that aren’t part of the itinerary. Over IAP, a group of undergraduates traveled to Peru to implement projects ranging from education initiatives to pedal-powered innovation. They had a lot of expected success, but they also definitely encountered some surprises.

**Kristen Watkins ’11** traveled to Lima intending to teach children in Westfalia, a local orphanage, about harnessing renewable energy from the wind by building wind anemometers and kites. But once the staff and children found out that Kristen is an athlete on the women’s gymnastics team, they would not let her go until she taught them a few tricks.

Soon, the kids were doing hand stands and forward rolls all over the schoolyard. The spontaneous gymnastics class definitely gave the children a break from their daily routine and experience they’ll remember.

**Lisa Tacoronte ‘10** built a bicilavadora, a pedal-powered washing machine, for the children at La Sagrada Familia, an orphanage outside of Lima. The children spend a considerable amount of time washing their clothes by hand, so the bicilavadora makes the activity fun and fast.

In the town of Amparaes, the group built a pedal-powered machine for grinding corn to replace the old hand-cranked mill. Once the villagers saw the innovation, they immediately asked Lisa if the group could build a pedal-powered blender.

With a little bit of innovation and resourcefulness, the group and the villagers constructed the contraption together in about a week. To celebrate, the mayor put his foot to the pedal to make banana smoothies for the whole town.

The Peruvian government installed a trout farm in Amparaes as a nutritional supplement and source of income. **Sam Weiss ‘10** created a water level alarm for the breeding pond and formulated a recipe for trout food.

The alarm alerts the villagers when the water level in the breeding pond drops to urgently low levels. Sam built the simple series circuit using local supplies bought in Cusco, making it an appropriate, repeatable technology.

Sam also put together a delicious concoction of cow’s blood and cornmeal for the trout to snack on. Cow’s blood is a cheap and readily available (and not to mention renewable) resource in the area.
An important aspect of the trip was assessing the urgent needs of the community. Sara Barnowsk ‘10 helped survey people in Ampareas and was shocked by the most requested technology. Essentially, the villagers described a spinning wheel.

The villagers harvest alpaca wool but must ship it away to have it spun into thread. Then they buy back the thread to weave it into various goods to sell. They could increase their profit if they could have a way of spinning their own wool, cutting out the middle man.

Sara brought the challenge of building an efficient spinning wheel back to Cambridge for a future team to tackle.

As a vegetarian, Sara also had an interesting culinary experience in Peru where most of the population is decidedly omnivorous. The host families she stayed with were respectful of her diet, even if they didn’t quite understand it. But Sara also had some trouble understanding the Peruvians’ gastronomic adventures, especially when the villagers cooked up some baked guinea pig.
Loud squealing horns. Dense smoggy air. Rickshaw snaking dangerously in and out of traffic. Pungent smells of street food vendors blending with the dank odor of trash and feces. “There was everything you can imagine,” said Jared Sartee ’09 as he described his travels in India this past summer. “[Delhi] was like a regular American city, but at the same time so different. The smells were soooo strong. It was a sensory overload.”

But Jared did more in India than simply experience the sights and smells. Combining his studies in mechanical engineering with a desire to improve upon the world’s problems, Jared managed to put his education to practical use to help the greater good.

Jared’s journey began last spring with SP.714 Developing World Prosthetics (DWP), a class that focused on low-cost prosthetic leg design for amputees in India. While he was originally interested in humanoid robotics, programmed devices that allowed for accurate human function of missing limbs, MIT did not offer a class on the topic. Jared opted for the lower-tech approach but soon discovered that the class provided mechanical aspects that he found even more appealing. “Even though it was more low tech, we applied the same principles, and it still gave me the ability to design,” recalls Jared.

But this design process was not always easy. While a prosthetic in the United States can cost anywhere from $5,000 to $40,000, such devices are unattainable by someone in India making only $2 a day. Thus the design needed to be cheap, but it also needed to be robust for the more rugged lifestyles of those in rural areas. “It challenged us to not think about things in terms of what is the most powerful prosthetic we can build, but instead think about how do we could fit the need,” Jared explained.

After many iterations, he and his team members had a rough prototype of what was dubbed the Exo-Knee, a prosthetic for above-knee amputees. The knee was unique due to its ability to automatically dampen stride impact and allowed for easier leg “swing through” with each stride. Over the summer, Jared manufactured four working prototypes to test on patients overseas.

Despite all of the hard work, the trip to India proved to be the most enlightening as far as assessing the needs and the proper designs for the people there. Working in conjunction with the Jaipur Foot Organization (JFO), one of the world’s largest limb fitting companies, Jared tested his limbs on three different patients. Through patients’ critiques of step springiness and ease of knee swing through, Jared was able to pinpoint the faults of the Exo-Knee and came away with a new perception of how the prosthetic would be used in everyday life.

However, though Jared focused mostly on design modifications, he first had to make an adjustment in lifestyle. Immersed in a totally different culture, he had to adjust to new food, new customs, and a slower-paced lifestyle. “[My mentor] would come into work around 10:30. There was no rush,” he says. “The pace of work [in the US] is so fast-paced comparatively. They seem to have a more family-oriented (as opposed to career-oriented) focus.”

Spending part of his time in a clinic in Delhi, he also got to experience the differences in patient care of the two cultures. “[The doctors] didn’t treat [the patients] like guests as we do here. They didn’t mind making them wait...It wasn’t rude, just different practice.” According to Jared, there was no doctor-patient relationship, due to the fact that patients often had to travel many hours to receive care, and follow up visits were often expensive and therefore unlikely.

Jared also gained a broader cultural perspective as he took some time to see the countryside outside of Delhi. While much of the city and surrounding areas were filled with slums and the devastation of poverty, villages in the countryside promised much more community and hospital-
ity. “Small family farms and little restaurants and hotels filled these towns, and that’s the part I fell in love with,” he recalls. The locals were more than eager to show him shortcuts and offer rides, and a woman kindly opened up her spare room to him when he stayed in a village near Mount Kangchenjunga, the third tallest mountain in the world.

“In the country, everyone was super friendly and said hi and chatted…That was really cool.” In the countryside, Jared also encountered multiple amputees, all without prosthetic limbs, reminding him of the great need for both effective design and dissemination of these devices. These intimate experiences brought India closer to Jared, and the patients he was targeting became more than just a foreign and far away goal.

Though the Exo-Knee project is still in progress, Jared looks back fondly on his experiences in India. “It opens your eyes to a whole other culture that is not yours, and you learn so much,” he says. “You get to work to benefit human quality of life, not just for financial gain. Smart people can solve so many problems. Prosthetics is just one of them, but there are so many more things to be fixed and a bright person from MIT can really go crazy with them…so many things to do, there's just not enough time.”

And with that, Jared encourages each and every student to act, to “go crazy,” to make a change, and to create a better world for all to live in.

Patient Bio: Kamal

Racing around the infamous race track “The Well of Death” at 60 km per hour, the motorcycle of 14-year-old Kamal lay almost horizontal to the ground. As the circus performer reached for a 5-rupee note held out by a spectator, his bike soared out of control, and he smashed into the course’s rough wooden wall as a following car ran over the lower half of his body.

Kamal was left with nothing but a 10-inch stump remaining of his left leg and numerous other injuries. While he made an amazing recovery, the loss of his leg continued to provide a constant reminder of the accident.

Jared met Kamal two weeks into his stay and spent the next week testing the Exo-Knee on him. Over the course of the trial, Jared heard his story about the hardships he faced with family and work after his loss. Now 16 years old and a homeless orphan, Kamal still risks his life in the “Well of Death,” making due with only one leg.

Jared looks forward to a time when the Exo-Knee can provide a new way of life for boys like Kamal.