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Rhetorical Bridges: How Rhetoric Affects the Gap Between Knowledge and Behavior Change

Allison Matlack Pranger
West Virginia University

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RHETORICAL BRIDGES:

How Rhetoric Affects the Gap Between Knowledge and Behavior Change

Allison Matlack Pranger

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Brian D. Ballentine, Ph.D., Chair
Catherine Gouge, Ph.D.
Scott Wible, Ph.D.

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ABSTRACT

Rhetorical Bridges:
How Rhetoric Affects the Gap Between Knowledge and Behavior Change

Allison Matlack Pranger

Health-communication campaigns have long operated according to the belief that individuals can be persuaded to change hazardous health practices through education about the risks or benefits of certain behaviors. Health-communication scholars and practitioners have ascribed to a theory of behavior change that posits acquiring knowledge about certain health issues leads to changes in attitudes and, ultimately, changes in personal health practices. Over the past decade, however, scholars have identified a *KAP-gap*, as they often see a wide gulf between an individual's Knowledge and Attitudes and his or her health Practice. Recently, rhetorical scholars have begun to view this KAP-gap through the lens of rhetorical theory, identifying reasons why knowledge alone is not enough to effect behavior change and building alternative models of persuasion that could more effectively support public health campaigns. My thesis takes up these same questions: What do current models and theories of human behavior and persuasion that shape health-communication campaigns look like? What can rhetorical theory contribute to understandings of how people can be persuaded and why they change behaviors? And how could these ideas give shape to a new method for designing and implementing public-health campaigns? Through an interdisciplinary approach, I provide a proposal for a tailored interactive health communication website that clearly demonstrates how rhetoric, viewed as a fluid dynamic between practical art and hermeneutic tool, can help bridge the gap between knowledge and behavior change.

DEDICATION

The author wishes to dedicate this thesis to the 2006 Form D class of Senkoase High School in the Mokhotlong district of Lesotho, southern Africa. *Kea le rata, bana ba'ka*.

The author also wishes to dedicate this thesis to her father, Richard Colbert Matlack, Jr., and her late mother, Sallie Scott Matlack.

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CHAPTER 1: INTRODUCTION

On November 16, 2005, I boarded a plane bound for Johannesburg, South Africa, to begin my service as a Peace Corps Volunteer. I was proud to be a member of a small group of young adults who had idealistic dreams of making a difference as teachers at our assigned post: the small, mountainous country of Lesotho. What I found instead, like so many volunteers who had come before, was that Lesotho made a difference in me. The things I learned in Lesotho have stayed with me even after my return to the United States, as have the frustrations I felt while trying to positively affect the problems that I encountered there. They lurked in the back of my mind, dormant for years, until 2009, when a graduate instructor challenged me to craft a research-based essay connecting my service-learning experiences to an aspect of rhetoric and composition theory. What, I wondered, did rhetoric have to say about one of the biggest frustrations I encountered, my inability to curtail the risky sexual behavior I witnessed in my Basotho students and thereby reduce their HIV infection rate? This question was bigger than I imagined.

The reasons that Basotho adolescents participate in risky sexual behavior are numerous and complex, so I quickly found that my question was not as simple as it first seemed. Likewise, I found that the answer, if there was one, could not be contained in a single conference-length paper because it touches on so many different areas, such as socioeconomics, public health, human behavior theory, and intercultural communication. While learning more about rhetorical theory and the art of persuasion, I was introduced to dozens of theories of behavior change, case studies from public-health initiatives, and suggested best practices for health-communication message design. Scholars from multiple fields were using methods from their own disciplines to try to find answers to questions similar to mine, and no one had found a definitive solution. My first essay on this topic only served as a primer for all I had yet to learn.

I did discern during my initial research, however, that experts in numerous fields—including public health, behavior change, health communication, and rhetoric and rhetorical studies—all agree on the best place to start: background investigation. As Coogan suggests, rhetoricians are uniquely positioned to participate in advocacy because of their ability to uncover and critically

analyze existing arguments, as well as to use that analysis to inform the creation of new arguments:

> Effective advocacy does not begin with the principles of good
> argument, then, but with an analysis of those historical and
> material conditions that have made some arguments more viable
> than others…it offers rhetoricians a unique opportunity to discover
> the arguments that already exist in the communities we wish to
> serve; analyze the effectiveness of those arguments; collaboratively
> produce viable alternatives with community partners; and assess
> the impact of our interventions. (668)

Here, Coogan states that rhetors must begin by learning about the community—identify the target audience, investigate existing intercultural rhetoric, attempt to define the exigence and how the audience arrived in their particular rhetorical situation, evaluate what arguments have and have not worked in the past—and then work to *collaboratively* find solutions. This suggests that rhetorical skills are at the heart of effective advocacy, and the best place for me to begin was as Coogan proposes: revisiting what I learned about HIV/AIDS in Lesotho as a first step to discovering how rhetoric can positively shape interventions based in the fields of public health, behavior change, and health communication.

A PERSONAL CASE STUDY

Lesotho is landlocked entirely within South Africa. Its main export commodities are water and human labor (mostly in the form of Basotho males working in South African mines), and "wealth remains concentrated among a small, largely urban minority" (Owusu-Ampomah, Naysmith, and Rubincam 14-15). According to a 2002 report from Family Health International, Lesotho is "one of the poorest countries in the world" with "an annual per capita income of US$520 in 2000 prices," but perhaps the most disturbing statistic is its life expectancy, which is "projected to fall to 35 years by 2015" (*HIV/AIDS Behavioral Surveillance Survey* 1). Lesotho is experiencing a crisis, and while poverty and inequity both play a role, it is the HIV/AIDS epidemic that is decimating the population.

The current HIV-prevalence rate among the 15-49 age group in Lesotho is estimated at 23.2%, which is the third highest in the world after Botswana and Swaziland; more than half of those infected are women, and in the 15-24 age group, 71% are female (Owusu-Ampomah, Naysmith, and Rubincam 8). These statistics translate into nearly one in every four young Basotho adults, and of those infected, seven out of every ten are young women.

As a Peace Corps Volunteer, I knew most of this information. My brief pre-service training included these dire statistics and emphasized the importance of incorporating life skills and HIV/AIDS education into class curricula. What was not included in that training, however, was information on proven behavior-change theories and health-communication best practices that would allow me to truly play an effective role in reducing the HIV infection rate. Believing that I could influence my students' behavior simply by teaching them everything that I knew about HIV/AIDS, I integrated HIV/AIDS education into my English lessons through subject-based assignments, games, discussions, and lectures. I was operating under the assumption that knowledge about HIV/AIDS—how one becomes infected with HIV, how the virus attacks the body, what the difference is between HIV and AIDS, what treatments are available and what they entail, what it is like to live with AIDS, how one dies of AIDS, and how to mitigate the risk of infection, among other facts—would lead the students to change their risky behavior.

The assumption that knowledge leads to behavior change is not new. In his book *Risky Rhetoric*, Scott calls this the knowledge enthymeme: "In its basic form, the knowledge enthymeme posits that…knowledge…will positively intervene in the epidemic to save lives and produce other beneficial effects" (44). The knowledge enthymeme—an informally stated syllogism that "depends not on a strict sequence of deductive reasoning but on the persuasive power of a wider web of premises and appeals, not all of which are 'logical'"—is based on the "'knowledge is power' commonplace" and "exaggerates the beneficial power and effects of knowledge" (Scott 44). Scott discusses the knowledge enthymeme in relation to HIV testing: if knowledge is power, then knowledge about one's HIV serostatus should lead to a change in behavior. In my interactions with my students, I unknowingly participated in an experiment that put the knowledge enthymeme to the test: if knowledge is power, then knowledge about HIV and how to

protect oneself should have lead to a change in behavior. Unfortunately, my assumption that information alone can lead to behavior change was incorrect.

Numerous behavioral-science and health-communications studies have concluded what I realized in Lesotho: "HIV knowledge is not protection" (Dinkelman, Levinsohn, and Majelantle 3). Through many in-depth conversations with my students about HIV/AIDS in different settings— in the classroom, in small groups, and one-on-one—I learned more about them, their culture, and their behavior. However, after all of my lectures, our discussions, and their assignments, they knew everything about HIV/AIDS that I did, yet their behavior did not change (one clear indicator that their behavior did not change is that one of my female students became pregnant in late 2006). Sligo and Jameson state the problem eloquently:

> With sufficient expertise and resources, a given message may be
> transmitted to a particular population with a reasonable degree of
> success, to the extent that a sufficiently large percentage of the
> people targeted will pay attention to the message and retain it to
> some extent. However, the more difficult stage is achieving
> behavior from knowledge, sometimes expressed along the lines of,
> if people know it, why don't they do it? (861)

All of my students knew, for example, that monogamy reduces a person's chances of contracting HIV. They also all readily agreed that they should be monogamous if they chose to enter into a sexual relationship. When asked if they *were* monogamous, however, the majority of them said they were not, and based on the nature of my relationship with them and the behavior I observed first-hand, they gave me no cause to doubt their assertions.

The reason for their behavior, they said, was *culture*. It is not a part of the Basotho culture to be monogamous. It is culturally acceptable for a male to have a female partner in every town, for husbands to have mistresses (especially if they live away from their wives due to work or if their wives are pregnant), and for younger women to sleep with older men for favors. If the boys had multiple girlfriends—and all the girls were sure that they did!—then it was only fair for the girls to have multiple boyfriends, and vice versa, perpetuating a culture of polyamory and high risk.

My students also presented a myriad of cultural reasons for not abstaining from sex altogether and for not using condoms.

All of this is not to say that knowledge of HIV/AIDS is not important. Knowledge is a very important step toward reducing risky behavior; however, it is only the *first* step. My approach of concentrating on imparting factual knowledge "failed to utilize the extensive behavioral science literature that has consistently found that having information about a disease and how it is spread does not necessarily increase the likelihood that one will take preventive action" (Fishbein and Guinan 5). I also failed to take the influence of existing cultural factors into account, did not provide enough motivation or behavior-skills training, and did not adequately analyze the role intercultural rhetoric played in the different cultural standpoints from which the students and I approached the subject.

Returning to the challenge from my graduate instructor, I began to question why, if the ultimate goal is to convince Basotho adolescents to reduce their risky behavior, the field known best for persuasion could not contribute to a more robust and effective behavior-change strategy. Rhetoric has much to say about audience analysis, intercultural communication, narrative, authenticity, argument structure, and intervention design. It instructs practitioners on how to take advantage of the moment when the audience is most open to influence (*kairos*). It provides centuries of evidence on how different types of arguments work in different rhetorical situations (*ethos*, *pathos*, *logos*). Even with only a cursory understanding of its functions and tools, I could see that rhetoric seemed perfectly suited to behavior-change interventions: "The point of rhetoric, after all, is to change opinions" (Crowley and Hawhee 16).

In an effort to find answers, this thesis takes up three main questions: What do current models and theories of human behavior and persuasion that shape health-communication campaigns look like? What can rhetorical theory contribute to understandings of how people can be persuaded and why they change behaviors? And how can these ideas give shape to a new method for designing and implementing a public-health campaign?

METHODS

My thesis begins with a discussion of the tensions between the classical definition of rhetoric as a performative and productive art and the more recent interpretation of rhetoric as an analytic lens. While some scholars suggest that rhetoric can only serve as one or the other, I borrow from Leff's theory of a fluid dynamic between practice and analysis and understand rhetoric to serve effectively as both a hermeneutic tool and a practical art. To that end, my research investigates ways to address the problem of how to reduce the HIV/AIDS risk behavior of Basotho adolescents first by employing rhetoric as a means to perform historical and cultural analysis and then as an embodied practice in the creation of a new text. The text I propose to create, Project MPHO (Multimedia Public Health Online), is a tailored interactive health-communication website designed for use on mobile phones.

I explore rhetoric as an interpretive tool first by introducing the term *kairos* and describing what is known as the KAP-gap, highlighting the importance of the rhetorical skill of audience analysis. The cultural and historical aspects of that analysis provide an outline of the reasons for Lesotho's high HIV-prevalence rate, and the kairotic aspect suggests that the burgeoning mobile-broadband market in Lesotho has created an ideal opportunity for a tailored interactive health-communication website such as Project MPHO, provided it is grounded in theory.

Because effective interventions must have theoretical underpinnings, I consider relevant behavior-change theories and health-communication best practices, then build on that foundation to explain the importance of digital rhetoric and mobile persuasion to the conversations surrounding behavior change. I briefly examine Miller's idea of the push/pull of rhetoric and technology—the push of technology allows interventions like Project MPHO to reach audiences in different ways, but the pull of technology's constraints exerts influence the information presented—and describe how traditional rhetoric translates into digital space. Continuing to build upon my findings from the fields of behavior change, health communication, and rhetoric, I reflect on how Maxfield's suggestions for designers of interactive health communication for the developing world relate to Project MPHO.

This exploration allows me to rethink rhetoric as more than just a tool used for literary analysis and as more than just a method of producing oratory. My goal is to unchain rhetoric from its home in academia and to put it to use alongside message-design and behavioral theories in the field. This interdisciplinary approach results in the detailed proposal for Project MPHO, which clearly outlines how rhetoric can help bridge the gap between knowledge and behavior change.

CHAPTER 2: DEFINING RHETORIC

The majority of scholarly articles on the subject of rhetoric spend time defining and defending its very nature, and a working definition of rhetoric has come to be important because of the lively debate. Readers need a sense of perspective: does the author view rhetoric as "a container or a thing contained" (Miller, "Classical Rhetoric without Nostalgia," 161)? In other words, does the author think of rhetoric as an evaluative and teaching tool, or does the author think of rhetoric as embodied practice? And a defense of rhetoric is equally as important because, in today's world of mud-slinging politics, the word carries with it derogatory baggage and an implication of inflammatory speech. The word is often misused and miscategorized, especially in popular media (for an example, see Hannity).

Part of the confusion stems from the way rhetoric's focus has shifted over the millennia as it emigrated from ancient Greece to modern America. My background in Latin and Greek provided me with my first classical definition: "rhetoric is the art of speaking well" (Quintilian, Book V, Chapter 10, 54). However, as Fleming notes, it would be more accurate to say that the word *rhetoric* focuses on the character of a person rather than on the art of speaking itself:

> The word rhetoric discloses this focus on character in its very
> etymology, derived as it is from a Greek word meaning neither the
> art of speech nor speech itself (nor the art of persuasion nor
> persuasion itself) but rather the art or skill of the rhetor…. From
> this point of view, rhetoric is an ability associated with a certain
> kind of person and the goal of studying it is to actually become like
> such persons.... (106)

In order to cultivate the abilities that would allow them to emulate the rhetors they admired, students of rhetoric in ancient Greece would march through the *progymnasmata*, a series of exercises that "were designed to focus student work on the elements of rhetorical skill, the preliminaries to full-scale text-making" (Fleming 115). As Fleming suggests, students were taught writing and speaking skills in order to make texts. They learned the necessary competencies to become rhetors so that they could participate in rhetoric as a practice. Students

did not analyze texts for sheer hermeneutic purposes, but to learn how to create something new, something that Porter would call "usable and useful" ("Rhetoric in (as) a Digital Economy" 174).

The traditional definition of rhetoric as a practice lasted for centuries: Bitzer appeared more than two thousand years after Aristotle, asserting that the true meaning of rhetoric is not to analyze texts but "to produce action or change in the world" (4). However, as Gaonkar notes, an interpretive turn was made that "coincided with the constitution of 'rhetorical criticism' as a subfield of study" in rhetoric (30). This turn shifted the primary purpose of rhetoric from embodied practice to hermeneutic tool. Most modern rhetorical-studies classrooms are not concerned as much with the production of rhetors who can craft and deliver powerful orations as they are on teaching students how to act as informed critics. Scholars such as Warnick readily admit that rhetoric is now used mostly for critique and analysis, not, as it was originally intended, for creation.

Not everyone is happy with this shift. One argument, posited by Gaonkar, suggests that if rhetoric is used solely as a means for critical analysis, then it loses its unique identity and strengths. Because "the interpretive turn in rhetoric is inextricably linked to an impulse to universalize rhetoric," it encourages the habit of folding everything into the field of rhetoric (Gaonkar 29). Gaonkar goes on to suggest that once we begin to call *everything* rhetoric, then *nothing* is rhetoric: "the seemingly careless and ubiquitous uses and invocations of rhetoric deflect our attention from its strategic deployment" (38). This is how the term "rhetoric" has come to be equated both with purple prose and with mud-slinging political ads. According to Gaonkar's argument, rhetoric is at its heart not just a set of tools, but a practice and "preeminently a means to an end. It enables its practitioners to act upon an audience so as to instill in them desirable attitudes and beliefs and when appropriate to incite them to action" (28). What Gaonkar is suggesting here is that what makes rhetoric unique and powerful is its function as an intentional act that attempts to influence members of an audience. He calls us back to rhetoric's classical roots, urging us to employ rhetoric in practice and to stop using the word in vain.

While I agree that rhetoric is a practice and should be used to create something usable, I also firmly agree with Leff when he notes that analysis and creation are not mutually exclusive. Even in ancient Greece, students did not begin their studies by writing speeches, but spent time analyzing texts so that they could better understand how to form effective arguments. The best use of rhetoric is as simultaneous embodied practice and hermeneutic tool: "Production and interpretation are not discrete activities. They occur in association with one another, and unless they are purified through an artificial lens, a focal interest in one does not preclude a lively interest in the other" (Leff 95). Especially when planning an intervention such as the project proposed in this thesis, Project MPHO, one must begin by performing an extensive historical analysis of the audience and existing rhetorical arguments, then use the knowledge gained through rhetorical analysis to create something new that effectively moves the members of the audience to change. Rhetorical criticism alone will not impact the HIV infection rate in Lesotho, and the creation of an intervention text that is not informed by rhetorical analysis will not be as effective as one that is shaped to meet the exigence. This is the critical intersection of rhetoric and behavior change: creating a meaningful and contextually relevant argument that bridges the gap between knowledge and behavior change and persuades members of an audience to take action.

CHAPTER 3: THE KAP-GAP, *KAIROS*, AND THE AUDIENCE

Had I done any research into behavior-change theory before I arrived in Lesotho, I would have encountered the term *KAP-gap*. According to Gordon and Phiri, "KAP stands for Knowledge, Attitude, Practice; and refers to the idea that if people have knowledge and positive attitudes, they will change their behaviour [sic]" (67). This term is another way to describe the knowledge enthymeme, and it is a well-known problem to health workers in the field.

The only way to bridge the KAP-gap is to construct a tailored intervention that fits into the context of the audience members' lives, as Petraglia suggests:

> This gap, separating health knowledge and attitudes on one side
> and actual health practices on the other, describes what all
> educators have long known: it may be easy to learn facts, but
> without the ability and willingness to apply information to the
> contexts in which the information is relevant, knowledge is wasted.
> (Petraglia 176)

My students in Lesotho were able to learn the facts about HIV/AIDS, but without contextual clues that would make the information usable, they lacked the "ability and willingness" to try to apply their knowledge. The word *ability* here is key because even if a student were willing to try an alternative behavior, external conditions might prevent him or her from doing so. One example is a female student who wants to have safe sex with her boyfriend. If the only thing the student is taught is the fact that condoms can prevent the spread of HIV, she might not be able to apply that information, even if she is willing. What if no condom is readily available or if her boyfriend refuses to use one? She needs to learn negotiation skills through exemplars (e.g., entertainment education, dramas, role playing) so that she can navigate her way through the situation, such as how to suggest safer forms of sex until a condom can be located. She also needs to be given the motivation through vicarious experience (e.g., personal narratives/testimonials) to do so, as it would be much easier to give into her boyfriend's immediate desire. In order to help my students find motivation and to teach them necessary behavior skills, Petraglia suggests that I should have used what my students taught me about

their culture and habits to co-create an intervention that fit their needs in the context of their everyday lives:

> [A] student of persuasion coming out of the field of rhetoric might counter that everyday persuasion is ill-structured and enthymemic: a series of premises not linked by logic but by practical rationality, emotion, and inference. An argument's effectiveness depends on *kairos*—the rhetorical moment that aligns the rhetor's goals and the audience's expectations with the situation at hand…. It is not controlled or predetermined by either the rhetor or the audience alone but is coconstructed and constantly evolving. (Petraglia 179)

If members of an audience are given culturally and contextually appropriate information and are shown how they can realistically apply that information in their daily lives, such as through exemplary dramas and personal narratives (both included my proposed intervention, as discussed in Chapter 9: Project MPHO), they will be more likely to adjust their behavior, creating a bridge that spans the KAP-gap. However, as Petraglia states, even if the right information, skills, and motivation are present, the effectiveness of an argument hinges on *kairos*: is the time even right for an intervention? If it is, what type of intervention aligns with the audience's needs at this kairotic moment, what attitudes or beliefs should be targeted for change, and what is the best channel to use to reach them?

UNDERSTANDING THE AUDIENCE

Effective advocacy requires that interventionists fully understand their target audiences so that they can identify the most changeable attitudes or beliefs. What my students taught me was that the reasons for Lesotho's extraordinary HIV-prevalence rate are many and complex. A 2008 Lesotho National AIDS Commission (NAC) report mirrored my findings through more scientific methods, noting that these reasons include the following:

> multiple concurrent partnerships; casual sex; intergenerational and transactional sex; the inability of couples to use condoms; lack of mutual monogamy within long term relationships and marriages; and the inability of men and women to share power and speak

openly with each other and their children/youth about sex and

sexuality. (5)

None of these topics can be addressed by knowledge transfer alone because information cannot impart the motivation or behavior skills required to overcome culturally ingrained habits. All of these issues warrant behavioral interventions that will help members of the audience find the willingness and ability to apply their knowledge, but the first item listed above is the most pressing and perhaps the most changeable. As Mah and Halperin point out, concurrent partnerships "can increase the size of an HIV epidemic, the speed at which it infects a population, and its persistence within a population," and there is a definite need for "locally informed and culturally relevant" messages around concurrency (11, 15; also see Epstein). This need helped to inform Project MPHO, which will provide such messages (see the Tailored Media section in Chapter 9). Another suggestion, this one from NAC, is that interventions should make concurrency "socially undesirable" by creating an "enabling environment" for change (25). This is perhaps easier said than done, as the practice of concurrent partnerships—known as *bonyatsi* in Sesotho—is a part of the Basotho culture and is almost expected, even by my young students.

Also commonplace to my students is the issue of transactional sex, which might not always be for survival and basic necessities, but to maintain appearances with peers, complicating intervention messages. It is generally assumed that the social health of a country is directly tied to its economic health and that a poorer country like Lesotho is more vulnerable to disease due to poverty-related conditions, such as lack of access to health care or adequate food. However, research has now shown that "wealthier rather than poorer individuals have higher HIV infection rates in [sub-Saharan Africa], a phenomenon that is increasingly becoming known as the positive-wealth gradient in HIV infection" (Ashley Fox 17). This might be because "relative poverty (having more to do with income distribution or economic inequality) rather than absolute poverty is correlated with high rates of HIV infection," leading to the intriguing conclusion that "poverty is not the problem, but rather development is" (Ashley Fox 17, 22). In an effort to become more developed, countries like Lesotho have seen an influx of consumer goods contrasted with a "scarcity of basic needs," and this "generates simultaneous pressures for both consumption and survival sex" (Ashley Fox 22-23). As one example, based on the large number

of my students who had personal cell phones, I could easily see how a poor student might be tempted to use anything available to her to obtain one so that she could fit in with her friends.

Transactional sex might not pose as much of a problem if an open dialogue existed between children and their caregivers, who could clearly explain the inherent risks and then help their charges find less risky ways to meet needs and desires. Open communication must be encouraged in order for any intervention in Lesotho to be successful because while Basotho adolescents like my students tend to be aware of HIV and other sexually transmitted diseases, they "become sexually active early in their lives and in most cases without any prior information on sex and sexuality" due to "lack of communication…among parents and children" (*HIV/AIDS Behavioral Surveillance Survey* 15). Elders are treated with a tremendous sense of respect in Lesotho: life is so hard in so many ways (e.g., poverty, drought, disease) that those who make it to old age are to be revered. Parents and teachers are in a position to influence the behavior of their charges by participating in dialogue, but because sex and sexuality are often considered taboo subjects, sometimes the only communication that comes across, if anything, is basic factual knowledge and a directive to abstain. All caregivers should be encouraged to speak more openly with children about sex and HIV/AIDS so that questions can be answered, myths can be debunked, and viable alternatives to risky behaviors can be found. A small start along the path to more open communication will be the community forum feature of Project MPHO (see the Community Forum section in Chapter 9), where site users will be able to ask questions and hold discussions in a safe, moderated arena while retaining their sense of anonymity. Creating a safe and inviting atmosphere that fosters open communication and creates a shared sense of community and purpose has been the cornerstone of many successful programs, such as the zero-grazing initiative in Uganda (Green et al.) and the sports-based programs that are becoming more frequent in sub-Saharan Africa (Longman; Wolff).

While the Basotho are hesitant to discuss sexuality amongst themselves, they have been bombarded with HIV-related messages from the media. Since the early 90s, "the HIV epidemic has been increasingly part of public life and debate in Lesotho" (Strand 225). Owusu-Ampomah, Naysmith, and Rubincam propose that this media onslaught has resulted in the HIV epidemic becoming "normalized, leading to a 'business as usual' response" (9). The sense of urgency and

emergency has been erased by a paradoxical sense of inevitability and denial (this reaction is discussed further in Chapter 6: Health Communication). As the 2008 NAC report emphasizes, "interventions must advance beyond awareness creation" (9). For example, targeting specific audiences with tailored behavior-change interventions via a more personal medium, rather than broadcasting generic information over the radio, would be a better way to suggest concrete and realistic ways to address the epidemic that is ravishing the country.

As luck would have it, a more personal medium has recently become available in Lesotho: mobile broadband. The advent of mobile broadband provides an appropriate channel for interventions like Project MPHO, cementing the kairotic moment. With such a staggering HIV-prevalence rate, there is no question that the time is right for behavioral interventions. Changeable attitudes and beliefs are present. And by harnessing the power of the Internet, interventionists can reach Basotho adolescents with tailored information that will help them navigate their complicated realities.

CHAPTER 4: HARNESSING THE POWER OF THE INTERNET

Basotho adolescents like my students are overwhelmed with generic factual messages about HIV/AIDS from the media and from teachers who focus on knowledge transfer, as I did, as a primary means to encourage behavior change. As discussed earlier, this has created a kind of business-as-usual response that has resulted in denial and avoidance. The Basotho adolescents know the basics, but they need specific skills that will reduce their fear and help them apply their knowledge in the real world. They no longer need technical information about the disease "because of the non-beneficial effect of such information to a large majority of the audience" (Soola 36); instead, interventions need to concentrate on developing negotiation and decision-making skills, addressing gender imbalances, and placing prevention in social context (Harrison, Smit, and Myer 289). Similar interventions worked to reduce the rate of new HIV infections in places like Uganda, where a decrease in multiple concurrent partnerships was key (Green et al.; also see Epstein). There is still hope for Lesotho, and a new channel that is perfectly suited for disseminating targeted, tailored interventions like Project MPHO is now available: mobile broadband.

In general, basic Internet access is becoming more and more common and is "growing dramatically in the developing world" (Maxfield vi). For example, during my tenure in Lesotho from 2005 to 2007, most people in the country could only access the Internet at community access points—usually Internet cafés in major towns—which severely restricted access to those who were computer literate and who either lived in towns or could afford to travel. But by the end of 2008, the majority of the country's residents had access to mobile broadband. In a region where there are "more wireless subscribers than there are households with a telephone line" (Maxfield 8), mobile broadband provides the opportunity for Internet connectivity to almost everyone who can afford it.

Vodacom Lesotho, one of the most popular cell services in that country, now offers "third generation cellular technology—3G" in metropolitan areas ("Coverage Map"). Even in regions where the 3G speed is not available, Vodacom offers access at a slower speed, claiming to

provide mobile broadband coverage for 70% of the country, including "some of the most remote locations in Lesotho" ("Coverage Map"; see figure below).
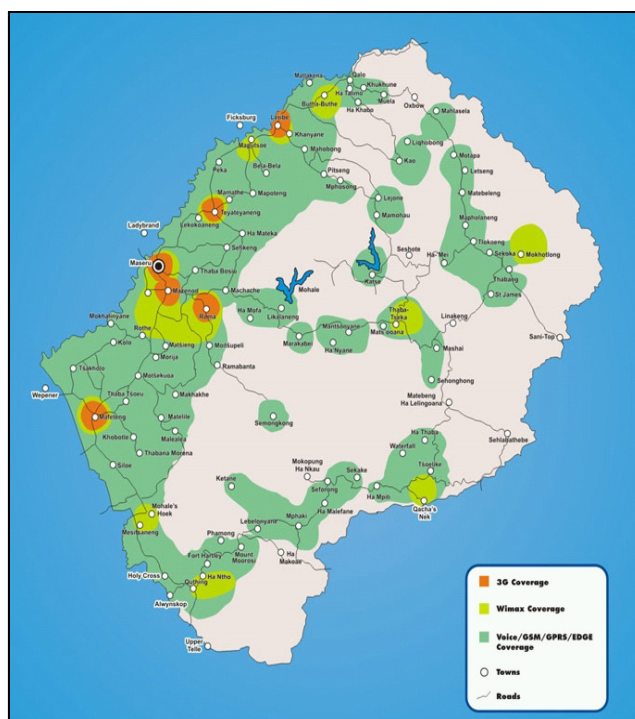
Figure 1: Vodacom Lesotho Coverage Map ("Coverage Map")

Also, just like with the most common voice and text-messaging services, Vodacom's data packets can be pre-purchased at ubiquitous retail locations. This access removes "many of the community- and individual-level barriers [present] in developing countries, including the lack of convenient access points, lack of rural access in general, the cost of the technology, and the technical literacy required to use a computer" (Maxfield 9). Anyone in the coverage area who can use a cell phone can now access the Internet.

This, then, is the kairotic moment: the place in time where opportunity and intention meet. There is an established need (to reduce the rate of HIV infections) with defined goals (delay sexual debut and reduce risky behavior, such as the number of multiple concurrent partnerships) that aligns with the needs of the audience (Basotho adolescents who require the skills to apply their knowledge in the context of their everyday lives) and the situation at hand (burgeoning mobile broadband availability). With a strong foundation in proven behavior-change theory, lessons learned from health-communication campaigns, and tools borrowed from rhetoric, a tailored,

interactive health-communication mobile website aimed at reducing the HIV/AIDS risk behavior of Basotho adolescents will be able to help bridge the KAP-gap and turn knowledge into practice.

ONLINE INTERVENTIONS

Public-health interventions are not new to the Internet. In fact, the "Internet is recognized as a valuable tool for intervention and prevention in Western cultures" (Ybarra et al. 2105). With the rapid expansion of mobile broadband access, the Internet could become equally as valuable to the developing world as a "promising strategy to deliver low-cost HIV/AIDS risk reduction interventions in resource-limited settings with expanding Internet access" (Ybarra et al. 2104). The reason the Internet is so promising is because it provides a number of benefits and eliminates some of the barriers surrounding traditional face-to-face and generic mass-media interventions.

The potential benefits for Internet-based health interventions are numerous, especially when reinforced by being "used in conjunction with prevention services available in clinical settings" (Bull 369). Lustria et al. note that "computer-tailored content/customized health programs which are more complex and are generally longer term" allow for "patients to access the program multiple times" and "are particularly appropriate for targeting multiple or difficult-to-influence behaviors that may require longer interventions to break down barriers to change" (170). If the program is always accessible and is engaging enough to encourage users to return, the intervention might be more successful. In addition, Internet-based interventions can break down some of the traditional barriers, such as those described here by Ybarra and Bull:

> Internet- and cell phone–based programs can overcome barriers to traditional interventions including facilitator issues (e.g., discomfort with topics, incomplete implementation) and individual obstacles (e.g., transportation, insurance, physical limitations, the need for child care). Programs can be made available to a much larger and geographically dispersed audience, substantially increasing reach and impact of health interventions. Messages can be individually tailored based upon a risk assessment, increasing

their self-relevancy, and content can quickly and easily be updated.
(201)

This last point—message tailoring—is perhaps the most important. It is essential that health information is made meaningful to the target audience, and, according to Noar, Benac, and Harris, tailored information has "the advantage of being customized to individuals to increase the chances that the message will be viewed as personally relevant, central processing will take place, and an individual will be persuaded" (684). Tailoring is at the heart of effective behavior-change and health-communication interventions and is the most consistently recommended aspect to consider when designing messages because it results in the most contextually relevant information being provided to the target audience. For these reasons, Project MPHO will be tailored to an initial user survey (see the Demographic Survey and Information Tailoring sections in Chapter 9).

As additional benefits, there are a number of different aspects of the Internet that "significantly [affect] the range and flexibility of the intervention options available in preventive medicine" (Fotheringham et al. 113), including interactivity and anonymity. The interactivity aspect increases the effectiveness of behavior-change interventions: with the recent shift in "purpose of campaigns, from simply aiming to raise awareness about HIV/AIDS to attempting to impact safer sexual behaviors," interactivity "may help to build skills and foster behavioral changes" (Noar et al., "A 10-Year Systematic Review," 35). The aspect of anonymity, as posited by Ybarra et al., allows "users to identify a stigma-free, anonymous atmosphere in which to receive individually tailored information" (2105); this is important because in many regions around the world, there is still a stigma associated with being HIV positive, and, as Nieuwboer, Maes, and Swanepol note, the anonymity of the Internet provides a way for individuals to sidestep any "feelings of shame and guilt which can dramatically obstruct communication in face-to-face settings" (829). Users can view content and post questions, such as in Project MPHO's community forum, without revealing themselves to their friends, family, and neighbors.

Interactivity and anonymity are not the only advantageous features of the Internet: Internet-based interventions should take advantage of all of the capabilities the medium has to offer in order to avoid the "information-only interventions" that fall prey to the knowledge enthymeme (Barak

and Fisher 325). Compared to traditional classroom instruction, the Internet is more accommodating to multimedia (e.g., video and audio), provides "convenience and 'always on' availability" (Budman 1293), offers the ability to provide real-time updated information (Barak and Fisher 325), and allows for individually tailored interventions (Fotheringham et al. 114; Maxfield 15). Psychologists Barak and Fisher note several additional capabilities of Internet-based interventions that differ from traditional instruction, including hypertextuality, packet-switching (providing freshly tailored content), data collection, and privacy. Internet-based interventions can also take advantage of social support networks and peer-education techniques through the use of community forums. All of these features served to inform the design of Project MPHO, and while the initial elicitation research will uncover more about when and how Basotho adolescents use the Internet, it is clear that they are already familiar with mobile social media: several of my former students have reconnected with me via Facebook, which they access from cell phones.

Even though there are numerous advantages to Internet-based interventions, one potential barrier is cost, and the up-front costs of creating an Internet-based intervention can be higher than those of traditional print or face-to-face interventions. Designing and implementing a tailored interactive health-communication website can be cost-intensive from the outset, especially due to the initial extensive elicitation research. Funding is needed for both the research and for developing sophisticated computer-based algorithms that allow for dissemination of customizable information. However, as Noar, Benac, and Harris suggest, "once the initial work of developing materials is done the tailored program may yield dividends over time, as the costs of using the interventions once they are developed is quite small" (689). When compared with print, mass-media, or facilitator-led campaigns, an Internet-based intervention has the potential to be more cost effective in the long run and is more easily scalable.

While it might seem like the benefits outweigh the barriers, data from the field imply on the surface that Internet-based health interventions show less than promising results (Bull et al.); however, many of these interventions, such as the one mentioned by Bull et al., are short-term interventions that are not very intensive, and to my knowledge, no studies have been done on in-depth Internet-based interventions in the developing world, where mobile broadband access is

exploding. Evaluations of "eHealth" (health interventions disseminated via computer media or over the Internet) have become more common within the last decade, but the venture into "mHealth" (health interventions disseminated by mobile phones) has only just begun. Most mHealth interventions discussed in scholarly articles thus far involve provider-patient phone calls or information-based text messages (Ybarra and Bull). Research related to eHealth-like interventions disseminated via mobile phones is lacking, and, in general, "Internet-based programs in developing countries are a feasible but as-of-yet untapped opportunity" (Ybarra and Bull 205). Nevertheless, evidence suggests that an intervention like Project MPHO will be effective in addressing the HIV/AIDS risk behavior of Basotho adolescents if the intervention is properly designed and grounded in behavior-change theory.

CHAPTER 5: BEHAVIOR-CHANGE THEORIES

For an intervention to be effective, it must be grounded in behavior-change theory. There are dozens of different behavior-change theories, each of which falls into one of three main categories: individual health-behavior theories, interpersonal health-behavior theories, and health-behavior theories that focus on communities and groups. Many of the theories are similar and contain similar constructs, and the "major theories of persuasion and behavior change are complementary and not competing" (Slater 225). Interventionists often find that, as Fisher and Fisher suggest, "no single model readily translates into a comprehensive intervention" (47). In order to identify the most appropriate theory (or theories) for an intervention, one must begin by identifying the target audience, outlining the intervention's goals, and deciding on a channel for dissemination. In this case, I am looking at a tailored interactive health-communication mobile website aimed at reducing the HIV/AIDS risk behavior of Basotho adolescents, and based on a review of articles and meta-analyses, the Transtheoretical Model (TTM), the Information-Motivation-Behavioral Skills Model (IMB), and the Diffusion of Innovations Theory (DOI) are the most appropriate.

TTM is also known as the states-of-change theory as it "tailor[s] therapy to a person's needs at his/her particular point in the change process"; aspects of other theories can then be "applied in an effort to clarify how individuals move across stages" ("Behavior Change"). According to Prochaska, Redding, and Evers, TTM "posits change as a process that unfolds over time, with progress through a series of six stages, although frequently not in a linear manner" (98). Most people begin in a state of precontemplation, where they have no intention of taking action and might not know much about the targeted health behavior. They then move through contemplation, preparation, action, and maintenance, though not necessarily in that order (for example, one might move to preparation, action, and then back to preparation). The final stage is termination, where there is no temptation to relapse and the person has complete confidence in his or her own competence. The essential arguments used in Project MPHO, then, will differ depending on the user's state of change: "each stage in this model requires a different type of message to be conveyed to the user to help him or her move to the next stage" (Budman 1291); or, as Fishbein and Capella suggest, "very different types of interventions will be necessary if

one has formed an intention and acts accordingly, if one has formed an intention but is unable to act upon it, or if one has little or no intention to perform the behavior" (S6). TTM identifies ten processes of change, such as self-reevaluation and stimulus control, that are the "covert and overt activities people use to progress through the stages" (Prochaska, Redding, and Evers 101).[1] Also included in TTM are the constructs of decisional balance (weighing pros against cons) and self-efficacy (a person's belief in his or her ability to perform a specified behavior).

TTM is a natural choice for an intervention that focuses on tailoring information, as evidenced by the number of health-communication scholars putting it to good use. Noar, Benac, and Harris name TTM as an example of one of the most effective conceptual bases for tailored interventions and note that tailoring for multiple theoretical concepts can be more effective than tailoring on none or just a few, especially when concepts used in the intervention include "attitudes, self-efficacy, stage of change, process of change, and social support" (687). Rimer and Kreuter also encourage the use of TTM to tailor information, positing that tailored messages are better able to help audience members progress along the continuum of change. Slater suggests that the states of change can be powerful either when used alone to segment the audience or when used alongside concepts from other theories. Surveys can be used to determine a user's current state of change, and then the information provided by the mobile website can be tailored to meet that user's particular needs as he or she moves along the continuum. The use of TTM in Project MPHO is discussed in more detail in the Demographic Survey section in Chapter 9.

With its focus on information, motivation, and behavior skills and a proven track record in HIV-prevention interventions, IMB is an excellent complement to TTM (Fisher and Fisher 42). IMB insists that interventions should provide prevention information that is "directly relevant to preventive behavior, and that can be enacted easily in the social ecology of the individual" and that "HIV prevention information and HIV prevention motivation work primarily through HIV prevention behavioral skills to influence HIV preventive behavior" (Fisher, Fisher, and Shuper 26-27, 28). What this means is that information alone is not enough: interventions must give members of the target audience the proper amount of motivation and the right behavior-skills

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[1] Frimley, Prochaska, and Prochaska add an eleventh process of change, assertiveness, which is associated with condom use.

training to give them the knowledge and confidence that allows them to perform the preventive behavior, and this is why Project MPHO will include personal narratives, entertainment education, and role-playing games. One of the major components of an IMB-based intervention is elicitation research, which samples a sub-section of the target audience "to empirically identify population-specific defects and assets in HIV prevention information, motivation, behavioral skills, and HIV risk and preventive behavior" (Fisher, Fisher, and Shuper 29). This research helps to shape the intervention, directing the information and training so that defects can be addressed and assets can be leveraged. Many of these defects and assets are culturally ingrained, making the research even more important for interventionists approaching the target audience from a different cultural standpoint. As one example, there is a cultural myth in Lesotho that condoms have worms (in fact, if you place a latex condom in boiling water, the rubber breaks down into worm-like bits), so an intervention like Project MPHO that attempts to debunk myths should address this and similar concerns. As another example, the issue of multiple long-term concurrent partnerships must be addressed for any intervention to be successful in reducing the HIV infection rate in Lesotho. These types of culturally specific information can be gathered during elicitation research.

The combination of TTM and IMB, along with allowances for demographic tailoring, should result in an effective intervention, but elements from DOI also serve to inform Project MPHO as DOI can be used to explain why HIV/AIDS preventive interventions do not have a long track record of success in the developing world. DOI describes "how a new practice can diffuse through a given social system to the point it becomes a social norm," and the "pace of diffusion relates directly to the five attributes (characteristics) of the innovation" (Bertrand 115, 117). These five attributes are relative advantage, compatibility, complexity, trialability, and observability. Not having sex, or having sex with a condom, does not have a relative advantage over unprotected sex, at least not in terms of pleasure. Culture makes it hard for preventive behavior to be compatible (e.g., if concurrency is accepted and having multiple lovers shows virility, why should one risk being seen as emasculated by becoming monogamous?), and maintaining preventive behavior is complex. Bertrand asserts that trialability is linked to observability, and it is difficult for a non-event (that is, *not* contracting HIV) to be observed, so people might be reluctant to try preventive behavior. However, DOI provides encouragement to

Project MPHO. The site should not be prohibitively complex; it should have a relative advantage as compared to traditional prevention intervention methods; it is compatible with the increased use of cell phones to access the Internet; and it is easy to try, even if the behaviors it promotes are not. Early adopters will encourage others to use the site, and the site will be modifiable based on feedback.

In addition to these three theories, another useful resource for planning an intervention is provided by Albarracín et al. in a comprehensive meta-analysis of HIV/AIDS prevention interventions: they provide decision trees for deciding on an active versus a passive intervention (active interventions apply behavioral theories, while passive interventions might just include condom distribution), then describe specific information and behavioral skills that should be targeted for each segment of an audience, noting that the "most effective interventions were those that contained attitudinal arguments, educational information, behavior skills arguments, and behavior skills training" (856). Based on these decision trees, Project MPHO will be an active intervention for both males (behavior skills, condom-use training) and females (attitudinal arguments, self-management skill training) who are under 21 (normative arguments, condom provision) and in the majority ethnic group (attitudinal arguments, information). Information for what Albarracén et al. call "multiple-partner heterosexuals" will also be included.

Designing an intervention is not as simple as following step-by-step instructions, however. One possible problem with these theories is that, as Fisher and Fisher note, they "assume that individuals behave rationally and that certain theoretically relevant elements affect their behavior" (47). Especially when dealing with adolescents, this might not be the case. Mallow et al. agree that adolescents require a special approach: "[g]iven the cognitive immaturity of adolescents, the rational decision-making model of risk behavior must be modified and expanded to accommodate developmental and cultural issues specific to adolescents" (175). These special considerations include sexual exploration, alcohol, relationship dynamics, and, as noted by sociologist Lagerberg, a feeling of invulnerability. Adolescents also have a "compromised ability to accurately assess risk and assert appropriate preventive strategies" (Mallow et al. 173). Many scholars agree that it is important, especially in a country with a high HIV-prevalence rate, to reach adolescents while they are still in formative stages, when "patterns of behavior are

developed that either protect or place young people at risk later in adult life" (James et al. 264; also see Wren at al. 309). The best way to promote change in this age group is by working through real-life situations and teaching applicable behavior and negotiation skills; small-group discussions and peer-led education have also proven effective (Feldman et al.; Wren et al.; Jemmott and Jemmott). Some might worry that teaching sexual education to adolescents might encourage sexual behavior, but this has not shown to be the case (Jemmott and Jemmott 120). The need to design an intervention that addresses the special challenges faced by adolescents is one reason why the elicitation research recommended by IMB is so important: even within the same culture, adolescents and adults have different deficits and assets. The initial research can be lengthy and costly, but it ensures that the most effective messages will be communicated to the audience.

While behavior-change theories such as TTM, IMB, and DOI can suggest ways to help identify what to say to a particular audience, one must look elsewhere for specific instruction on how to convey the appropriate messages. Behavior-change theories, as suggested by Cappella, "guide researchers to routes to persuasion and to beliefs to target in persuasive efforts, but...do not tell us how to design messages to achieve these changes" (S268). Other types of theories, such as those from the fields of rhetoric and health communication that focus on different stages of the persuasion process and on information and message design, can help to fill in the gaps.

CHAPTER 6: HEALTH COMMUNICATION

In very basic terms, the focus of health communication is on "who says what, via which media, to whom, regarding what" (McGuire 23). As Cappella states, the "creation of effective persuasive messages is a matter of both science and art" (S276): the science of behavior change and the art of rhetoric and message design. Integrating different types of theories—information-processing, behavior-change, and message-effect theories, for example—can be helpful because they answer complementary questions and are useful in tangent. Health communication places an emphasis on providing credible, engaging, understandable, and involved messages through various means, with positive two-sided appeals generally proving more effective than negative one-sided appeals (Salmon and Atkin).

There is an ongoing debate about the effectiveness of negative appeals, also known as fear appeals. An example of a fear appeal would be listing the consequences of an unhealthy lifestyle (disease, early death) instead of exemplifying the benefits of exercise and a proper diet (longer life, more energy). Even those in favor of using fear appeals admit that they "can and do fail if used improperly" (Witte, Meyer, and Martell 2). Witte, Meyer, and Martell go on to explain the risks involved in using fear appeals:

> If the recommended response does not eliminate the fear, then
>
> health educators risk having other responses becoming reinforced
>
> responses to the health threat—a dangerous situation because once
>
> a response works in reducing fear, it becomes habitual and
>
> consequently, is more difficult to change. (13)

This means that if the only way the audience members have to deal with their fear is denial or avoidance, those behaviors will become entrenched, making it harder for interventionists to provide appropriate motivation or behavior skills. These unintended consequences are already manifesting in Lesotho thanks to the onslaught of media attention and generic information transmission, and I encountered this type of denial and/or defensive avoidance on more than one occasion. As one example, a Mosotho co-worker in his late 20s once told me that HIV was so prevalent that he knew was bound to contract it eventually, and because he had been practicing unsafe sex long before he had even heard about HIV/AIDS, he thought he might already be

positive. He refused to be tested, and he was obviously not consistently using condoms because he later fathered a child. Murray-Johnson and Witte suggest that this man and many others became "so preoccupied with their fear that they are unable to adequately or accurately appraise their available resources...and they disregard the message in order to control their fear" (478). As psychologist Bandura states, there is a "need to shift the emphasis from trying to scare people into healthy behavior to empowering them with the tools and self-beliefs to exercise personal control over their health habits" (145). One-sided scare tactics and fear appeals should be avoided in favor of two-sided appeals that lead into motivation and behavioral-skills training.

Fear appeals are considered to be one-sided because they only show the negative consequences of performing (or not performing, in the case of using condoms) an action. Instead of focusing on negative incentives, however, Atkin suggests that a "design team should brainstorm less negative reasons why the audience should perform the healthy practice" and provide "a mirror-image positive outcome that can be promised for performing the healthy alternative" (61, 62). Blending the two—negative consequences and positive outcomes—creates a two-sided approach that can "provide several reasons for the individual to comply" (Atkin 62). It also allows the members of the audience to realize consequences while reducing the chance that they will become so afraid that they shut down. In terms of HIV/AIDS education, Project MPHO will ensure that any fear appeals (e.g., image of a person dying of AIDS alone in a bed) are accompanied by representations of positive outcomes of performing preventive behavior (e.g., image of a healthy, smiling couple holding a condom packet).

Blending these message-design tactics with behavior-change theory can result in a more effective intervention, but what about rhetoric? Health-communication scholars, perhaps more so than behavior-change theorists, are inclined to tip their hats to rhetoric, whether they call it out by name or hint at the rhetorical toolbox. Edgar, Freimuth, and Hammond declare that interventionists "should never lose sight of the fact that any communication-based intervention depends on the creation of persuasive arguments for its success" (629). Babrow and Mattson take it one step further, listing rhetoric as one of several traditions within communication theory and stating that "rhetorical theory is particularly well suited to studying characteristic tensions in health communication" and that the "rhetorical tradition also offers resources for bridging theory

and practice" (48). However, they along with most other communication scholars leave their exploration of rhetoric at the surface level, leaving one to wonder, what is it, exactly, that rhetoric has to add to this conversation?

CHAPTER 7: DIGITAL RHETORIC AND MOBILE PERSUASION

Behavior-change communication is fundamentally an argument: members of an audience participate in behaviors that are detrimental to their health, so a rhetor (here, via a mobile interactive health-communication website) must successfully argue to convince them to change those behaviors. To craft those messages in order to present effective arguments, designers of intervention websites utilize both verbal and visual rhetoric, which in an Internet-based setting are collectively known as digital rhetoric (Losh). As Welch explains, this is a "new merger of the written and the oral, both now newly empowered and reconstructed by electricity and both dependent on print literacy" (104). Digital rhetoric combines technology and rhetoric, a merger that is not as unlikely as it first might seem.

Technology and rhetoric both exhibit push/pull characteristics, and as Miller notes, "they are both in the business of balancing innovation with tradition, of initiating change and then compensating for it" ("Foreword" x). Miller uses the term affordances for the "ways that technology pushes and pulls at us," suggesting that these affordances "both enable and constrain" ("Foreword" x). They can simultaneously enable by providing a way for users to share information with each other while constraining by limiting each post to a certain number of characters, thus shaping the information shared. Likewise, mobile technology allows interventions like Project MPHO to reach audiences in different ways, but the constraints of the platform (e.g., small screen, low bandwidth) influence the information presented. Rhetoric can also enable and constrain, with its "supply-side 'push' theories" (generative invention) and "demand-driven 'pull' theories" (pre-existing proofs) (Miller, "Foreword," xi). In the context of a behavior-change intervention, a rhetor both pushes an argument while pulling contextual information from the audience in order to better respond to the kairotic moment.

When blending rhetoric with technology, the ancient rhetorical cannons—delivery, invention, arrangement, style, and memory—still apply as the body is reconstructed in digital space (Porter, "Recovering Delivery for a Digital Rhetoric"). Rather than owning a physical body, rhetors create an image of self—an identity or a persona—through the use of images, voice (written and oral; text and audio/video), and contextual clues. The site itself takes on this identity and impacts

the rhetor's credibility. For example, a webpage with a neon-orange background, green text, and animated images of butterflies will be seen as less credible than a webpage with a white background, black text, and organized tables. This is why "visual personalization [can have] more effect than verbal cues" (Nieuwboer, Maes, and Swanepol 829). In the context of Project MPHO, users will feel like they are interacting with an older, knowledgeable peer: graphics and videos will align with a user's demographic, and the voice used for text will be more informal than on most informational sites, hopefully creating a friendly and trustworthy persona.

Through text and media, verbal and visual rhetoric must work together to create an effective argument, and "any form of persuasion, including visual persuasion, belongs within rhetoric's province" (Blair 360–61). Visual arguments "do not constitute a radically different realm of argumentation" from verbal arguments (Blair 362), and I would go a step further to argue that in interactive health communication, verbal and visual arguments cannot (or should not) be separated. As an example of their combined effectiveness, in a study published by Nieuwboer, Maes, and Swanepol, students at a South African university reported that "the addition of a visual+verbal [sic] guide had a significant effect on the evaluation of the commitment and appeal of the source, and on the evaluation of the information" (836). As noted above, the persona presented by the rhetor plays a part in how the message is received because it creates rapport— *ethos*—a connection with the audience and influences perceived credibility. The more credible the messenger, the more believable the message.

Websites also allow rhetors to create a middle space where they can work together with the members of the audience to create meaning (Coogan). Hypertext is non-linear and constantly maps movement, allowing users to assume more control (Selber "Introduction"). As readers choose what information comes next, the rhetor and audience members push and pull each other and become co-learners. The site user becomes "a vital element in the creation of meaning and experience because the user creates the text and experiences it as appropriated and altered by means of his or her participation" (Warnick 30; also see Zappen 323). There is a greater emphasis on reader response, and intervention messages must be linked together carefully so that users, while free to explore the site, are able to follow effective paths. Rhetoricians view this type of technology as a text, "as requiring interpretation and performance, like a book or a play"

(Wells 161). The site is different for each user because of that user's particular way of accessing and interpreting the content.

Mobile technology takes these concepts one step further as it can "layer information into our moment-by-moment lives in a way that changes our behavior" (Fogg, "The Future of Persuasion," 10). Mobile devices are always with us, so this type of technology can persuade by becoming integrated with daily life (Eckles). Mobile phones are perfectly suited for an intervention designed for adolescents because interventions "must provide the information young people want when and how they want it...relevant information and referrals can be conveyed via mobile phones in a personal, private way at the moment when a teen needs them most" (Levine 16-17). As one example, Project MPHO will provide negotiating tactics that are available at the very moment they are needed (e.g., a girl has a boyfriend who is right now trying to pressure her to have sex without a condom, so she can quickly log on to find negotiation methods that work for her specific, immediate situation). As Fogg states, it is the "*kairos* and convenience factors [that] make mobile persuasion one of the most promising frontiers in persuasive technology" (*Persuasive Technology* 207). Mobile applications act like knowledgeable friends or guidance counselors who are always by your side.

CHAPTER 8: INTERFACE DESIGN CONSIDERATIONS

Rhetoric can play a significant role in the design of an interactive health-communication website: as Selber suggests, "interface design can be understood as largely a rhetorical activity, one that includes persuasion, deliberation, reflection, social action, and an ability to analyze metaphors" (*Multiliteracies in a Digital Age* 182). In order for the intervention to be successful, the website designer must take all aspects of the argument, as well as contextual information about the target audience, into consideration in order to tailor the site effectively. Designing for a mobile platform requires even more thought because screen real-estate is so limited: content must be engaging and with a clear focus, the site must be designed around space limitations, and context must be maintained (Ulm). Familiar patterns of site use should be considered so that information can be found where users expect to find it (e.g., mobile navigation icons at the bottom of the screen, where they are usually found on mobile devices, rather than at the top, where they are usually found on computers) (Cooke). Every detail of design matters, and each is a rhetorical decision.

In "Information and Communication Technologies for the Developing World," Maxfield outlines suggestions for designers of interactive health communication that are especially appropriate for designers of a site targeting an audience in places like Lesotho. Topics for consideration include access, information design, cultural relevancy, tailoring, and social support—all of which reside in the realm of rhetoric (audience analysis, argument arrangement, etc.).

Maxfield begins by noting that the site should first and foremost be designed "around the location of access points" (25). This is especially important to consider when the target audience is known to access the Internet via mobile broadband. Some content cannot be viewable by all phones (e.g., Adobe Flash is currently unrecognized by the Apple iPhone), and, as mentioned earlier, phone screens are much smaller than computer screens, so the platform heavily influences site design. Maxfield also states that the site should also be designed "for information-seekers" because "[p]eople need a reason to use a website and they need to know where to find it" and the "applications should focus on providing an immediate benefit to those in search of information or support" (Maxfield 25). In most cases, users of an interactive health-

communication site will already have a reason for accessing it (to gain knowledge and behavior skills), so it is important to meet their needs as quickly as possible. Users should not have to hunt for what they need the most: for example, navigation icons at the bottom of Project MPHO's screen will lead users immediately to essential information, such as where to find the nearest hospital or testing clinic (see the Design Considerations section in Chapter 9).

Another important consideration is to design "templates that can be adapted to local needs" (Maxfield 25). As Maxfield suggests, "[a]lthough a website can be accessed globally, its success will depend upon its local relevance" (Maxfield 25). Negotiation skills that apply to one audience might not apply universally, and if the members of the audience cannot realistically apply the learned knowledge and behavior skills in their own lives, then the effort is wasted, no matter how accurate the information might be. As Ybarra et al. note, both the site and the program must "be culturally relevant and must acknowledge local issues affecting access to healthcare and preventive behaviors, such as differences in locally appropriate and available contraception" (2110). An Internet-café user in Lesotho, for example, can access the WebMD website and find information about diseases, but the advice provided is tailored to an American audience, so the recommendations given by the website might not be applicable to that user on the other side of the globe. Also, when dealing with HIV/AIDS, it is important to take infection demographics into account. If one were to design a prevention program in America, one would tailor the program to focus on male-to-male sexual contact, high-risk heterosexual contact, and injection drug use ("Basic Statistics"); for interventions like Project MPHO in Lesotho, the focus is on heterosexual contact among adolescents and mother-to-child transmission (see the 2008 NAC report).

Another of Maxfield's suggestions is in accordance with TTM: site applications "should continually query users about their needs and their situation, and the information or support provided to them should be tailored accordingly," so they should be designed "for long-term dialogic communication" (26). This tailoring of both the site and the intervention program is perhaps the most important aspect to consider when designing an interactive health-communication website, as "outcomes of intervention programs appear to be far better when the program allows for user tailoring and specificity rather than simply feeding every user the same,

unalterable program" (Budman 1292). As Ybarra et al. note, the program should be "tailored to identified risk behaviors," and they describe the most effective means to that end:

> To do so, a brief risk assessment could be offered at the beginning of the online intervention to gauge the [user's] sexual behavior and HIV/AIDS knowledge. This assessment would drive the subsequent tailoring of prevention messages in order to highlight those HIV preventive issues most relevant to this [user's] risk profile. Additional modules that educate about age- and sex-specific biological changes should be integrated, as could tailoring for reading level. (2109)

Project MPHO, as discussed in the Demographic Survey and Information Tailoring sections in the next chapter, will include such a demographic and risk assessment. This assessment allows for use of aspects from peer education programs, which have been proven to be one of the most effective forms of behavior-change communication. The image and/or voice of the virtual health communicator should fit the user's peer group (e.g., if an image appears with text in Project MPHO, it will match the user's demographic so that all site information appears to come from a peer). This assessment also allows for tailoring to a user's state of change according to TTM, thereby providing the information that the user needs the most in order to progress along the continuum.

In addition to the tailoring of the interactive health-communication site as a whole, site applications, according to Maxfield, should be designed "for social support," which means they:

> should be combined with mechanisms such as bulletin boards or chat rooms that encourage social networking, social reinforcement, and the creation of online communities. Users can be linked to others that are at the same stage of change (including partners or group- or community-level users), face the same constraints, or share the same concerns about health issues. (26)

This type of social interactivity would also take advantage of the effectiveness of peer education, allowing members of a peer community to share advice and real-life stories. One concern about

such forms is the possible spread of misinformation, so for Project MPHO's community forum, a moderator will be hired to monitor conversations and to provide accurate answers to technical questions.

Maxfield advocates for taking advantage of all the mobile platform has to offer, stating that the site should be designed "for multimedia," using "graphic or audio interfaces that provide access to low-literacy or non-literate populations" (28). However, he suggests that the applications should be designed "with the lowest common denominator in mind," using "lower tech alternatives" whenever possible due to accessibility (Maxfield 28). Some users might have slower access speeds than others, so while flashy graphics are nice to have, they might not be the wisest option. For example, Project MPHO's videos will not load without a user's permission: links to video content will be provided so users have a choice.

With all of these suggestions in mind, there is still one overarching design consideration that has not yet been addressed: "The audience should participate, wherever possible, in…design and development" (Maxfield 25). No one knows the needs and the skills of a community better than its own members, so involving the audience in the design from the beginning—such as through the extensive elicitation research suggested by IMB, usability testing, and the continued site modification recommended by DOI—will result in a more effective intervention.

CHAPTER 9: PROJECT MPHO

Because I believe that rhetoric is at its heart an embodied practice, something used to create texts and not only to critique and analyze—although, as Leff posits, creation and interpretation are not mutually exclusive—I feel it would be remiss of me to conclude this thesis without trying to provide an answer to the question I attempted to answer with my initial research-based essay. The need for an active intervention in Lesotho is still great, and its internal resources are few: "Compared with Botswana and South Africa, Lesotho and Swaziland have far fewer domestic resources to fight HIV/AIDS, and these countries may need to mobilize a large part of the needed resources from external sources" (Ghys et al. S49). Using the best pieces from behavior-change theory, health communication, and rhetoric, as well as the power of the burgeoning mobile broadband market in Lesotho, I propose the creation of Project MPHO: the tailored, interactive health-communication website designed for use on mobile phones aimed at reducing the HIV risk behavior of Basotho adolescents. *Mpho* is the Sesotho word for *gift*, and that is what I hope it will be for the target audience.

ELICITATION RESEARCH

Before rhetoric can be put to use as embodied practice, it should be employed as hermeneutic tool. A thorough rhetorical analysis allows interventionists to understand the past and present of a situation and to thereby engage in rhetoric as a practice. One of the most useful tools in the investigative rhetorical set is audience analysis; rhetoric focuses on the audience and defines a person as a "historical construct," a being formed from and shaped by past experiences, present circumstances, and future hopes and dreams, inherently taking culture and context into account (Biesecker 125). Rhetoric helps us understand that what makes an argument effective for a person depends on that person's attitudes, beliefs, and prior experiences. It is then that the act of making a text or of shaping an effective argument takes place: "As rhetors we speak; as engaged scholars we act" (Grabill 193).

Accordingly, the first step of Project MPHO will be to consult members of the target audience because the members of the target community know their own needs the best. The extensive elicitation research mandated by IMB will serve to inform the facts that are presented, the myths

that are debunked, the behavioral defects that are addressed, and the assets that are leveraged in the intervention. Once the MPHO site is designed, focus groups will serve as usability testers to inform further site modifications, as recommended by DOI.

DESIGN CONSIDERATIONS

Chapter 8: Interface Design discussed Maxfield's recommendations for the design of an interactive health-communication website, and Project MPHO will take his suggestions into consideration. The site will be designed for mobile phone access, and while it will take advantage of multimedia (e.g., video, audio), it will provide text-based and light-graphics alternatives for those with slow connection speeds. One additional reason for initial elicitation research is to discover which types of phones and operating systems are in use on the ground; a site optimized for an Apple iPhone will not work well if the only phone available in Lesotho is a Motorola, and the sizes of the available screens will constrain the selection and presentation of media.

As an additional design consideration, essential site information will be made easy to access, and this will be accomplished by providing static navigation icons at the bottom of each page. Icons will be provided for the home/index page, HIV facts page, media page, local resources page, and community forum. For an example, see the figure below.
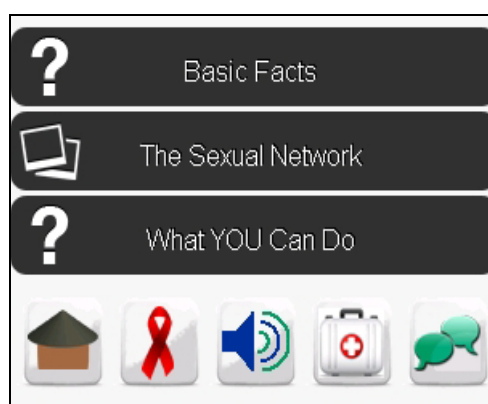

Figure 2: Example Navigation Icons

INTERCULTURAL COMMUNICATION

Culture, defined as involving "ideas, beliefs, values, and assumptions about life that are widely shared among a group of people and guide much of their behavior," plays a large role in how audiences receive and incorporate information (Ulrey and Amason 450). In order for members of an audience to feel a strong connection with a rhetor, they must share similar characteristics or demographic profiles (Hinyard and Kreuter). This is one of the main reasons for Project MPHO's site tailoring.

The types of theories used in an intervention are also culturally dependent. Airhihenbuwa and Obregon agree that culture is "central to planning, implementation, and evaluation" of interventions, noting that community-level theories are more important to tribal-minded peoples, like the Basotho, who view family and community as critical (S6). A rhetor constructing an approach for an American audience would have trouble persuading a Basotho audience with the same intervention because culture influences how rhetors approach and deliver arguments. Most Americans, for example, are more familiar with the concept of monogamy than the Basotho (even if not every American is monogamous, adultery is still grounds for a lawsuit).

Rhetoric can help prevent the miscommunication, and thus prevent the failure of interventions, that can result from misunderstanding culture (Christine Fox). To this end, Flower introduces the concept of intercultural rhetoric, suggesting that "[i]ntercultural rhetoric…is a place of multiple—and inevitable contradictory—agendas, from self expression to advocacy to collaborative understanding" (44). It is necessary for a rhetor to recognize his or her agenda—affecting behavior change, in this case—as well as the agendas of the audience, agendas of which the audience itself might not be aware because some behaviors are culturally ingrained and learned from friends and family without conscious acknowledgment. Rhetors must work within the "mix of expectations, conventions, and rhetorical traditions people bring" to the table (Flower 59). What this requires is what Flower calls "*inter*cultural dialog [sic]," which "asks people to put aside privileged and/or familiar ways of talking to one another in order to enter a far less predictable rhetoric of inquiry" (49, emphasis in the original). For example, an American rhetor might come to the Basotho thinking he or she has the solution to all of their problems without taking the time to conduct the elicitation research that would properly inform the

intervention: "Abstain, Be faithful, and use Condoms"—the traditional ABCs of safe sex taught under most American-funded interventions—is not a realistic solution for the Basotho. Based on Basotho culture, it would be more realistic to encourage the delay of sexual debut and the reduction of multiple long-term concurrent partnerships, which is what the MPHO site proposes to do.

Not only does the MPHO site need to present information that is culturally sensitive and applicable to the users' lives, but the site itself must situate itself within Basotho culture. This will partly be accomplished by hiring a translator to translate the site into Sesotho, the local language. Translation is not as simple as changing *gift* into *mpho*, however; every culture has its own set of idioms and traditional phrases that should be utilized. Providing the site in the local language will make the site accessible to the majority of the population and increase the site's credibility because the voice used—the identity created—will be similar to that of the target audience.

CREDIBILITY

The characteristics of effective arguments are common across fields: scholars in rhetoric, behavior change, and health communication all agree that, in order for an argument to successfully persuade, a source must be credible and speech must be sincere, normatively appropriate, comprehensible, and true (Christine Fox 88). Whether or not the speech is factually true, the appearance of truth can contribute to an argument's effectiveness.

Along those lines, Miller notes the importance of "mimesis: suspicion of the possible lie is reduced if language is believed to be determined by whatever is the case, not by the inventions of the speaker...spontaneity and sincerity serve to counteract suspicion" ("Should We Name the Tools" 27). However, she stresses that it is "not mimesis by rather the *appearance* of mimesis" that is sought (Miller, "Should We Name the Tools," 28, emphasis in the original). In the context of a behavior-change intervention, the audience must believe that the person delivering the message is honest and has the audience's best interests at heart. Of course, one hopes that an interventionist would present factual information on how to reduce HIV risk behavior, but in this

instance, perceived authenticity is perhaps even more important than perceived truth. As Petraglia suggests, "persuasion is at the core of authentication" (179).

There are many different ways to achieve authenticity, such as by contextually situating an argument and by using narratives. For a website to be credible and authentic, it must appear professional and trustworthy, and it cannot lead users down dead-end paths (hyperlinks should not strand users). Elicitation research and usability testing will help to discover ways to shape the site so that information appears to come from a trustworthy peer. This might involve different uses of graphics (e.g., making sure the image of someone in the user's peer group is provided near facts), colors (e.g., using the colors of the Lesotho flag might enhance cultural credibility), or text (e.g., users might find an informal voice and use of idioms more authentic).

PRIVACY

When a user accesses the MPHO site, he or she will be presented with registration and log-in capability before being taken to the initial demographic survey. Care will be taken in a privacy policy to stress that information is not shared or used for any purpose but to remember the user's specific site preferences, preserving the Internet's beneficial feature of anonymity. Answers to the demographic survey will be stored so that users only need to answer the questions once. Should a user choose not to register, he or she will still be given the option to take the questionnaire so that they may access the MPHO site; however, he or she will have to re-take the questionnaire during every subsequent visit since the answers will not be remembered.

DEMOGRAPHIC SURVEY

The most important feature of MPHO is the initial demographic survey. Race or ethnicity will not be taken into account because the Basotho are one people; when considering other countries, such as South Africa, different tribes and/or races will have to be taken into consideration because each disparate group has its own set of cultural attitudes, myths, and beliefs. The survey will assess age (target age of 15-29; outliers will be forwarded to a listing of local resources), sex, and TTM state of change. Sample questions are listed in the table below.

Table 1: Sample Survey Questions

Question	Possible Answers	
What is your age?	Under 15	[under target, taken to alternative page]
	15 -29	[target age group, taken to website]
	Over 29	[over target, taken to alternative page]
What is your gender?	Male	[taken to male version of website]
	Female	[taken to female version of website]
Do you know someone who is HIV positive?	Yes	[contemplation+]
	No	[precontemplation]
	Unsure	[precontemplation]
Do you believe you are at risk of contracting HIV?	Yes	[contemplation+]
	No	[precontemplation]
	Unsure	[precontemplation]
Have you ever been tested for HIV?	Yes	[preparation+]
	No	[precontemplation]
If you are sexually active, do you use condoms with your partner? (Naar-King et al.)	No, and I do NOT intend to in the next 6 months [precontemplation]	
	No, but I intend to in the next 6 months [contemplation]	
	No, but I intend to in the next 30 days [preparation]	
	Yes, but I have been for less than 6 months [action]	
	Yes, and I have been for more than 6 months [maintenance]	
	I am not sexually active [indeterminate; might be intentionally abstinent]	
If you are sexually active, how many partners do you have?	Only one	[maintenance]
	More than one	[precontemplation]
	I am not sexually active	[indeterminate; might be intentionally abstinent]

Question	Possible Answers
How are you currently dealing with preventing HIV infection?	I don't think about it [precontemplation] I worry about it, but I don't really know what to do [contemplation] I've thought about it and want to try something [preparation] I've started using condoms, but not all the time [action] I have been using a condom almost all the time [maintenance] I used condoms in the past but don't anymore [relapse = contemplation]

Each answer to a TTM question will be assigned a point value, and a computer algorithm will average the points, assigning the user to the appropriate state of change (precontemplation to maintenance). Additional surveys will be embedded in the site so that users can progress (or regress) from state to state. These surveys will not be available until a user has completed a certain number of tasks, such as watched a video and read through all of the available information.

INFORMATION TAILORING

The information presented to the user will be tailored based on the results of the demographic survey, taking into account the user's state of change and peer group. The site will present the user with appropriate graphics, presenters, and information. This means that multiple versions of the site will be created, each with subtle variations (e.g., a male user aged 15 will have information presented by other young adolescent males with a focus on heterosexual and male-to-male sexual contact, while a female user aged 28 will find images of women around her age and a focus on heterosexual contact, sex for pay, and mother-to-child transmission; a user in the maintenance state of change might see a video about forming and leading support groups, while a user in the precontemplation stage might see a video testimonial from a person living with HIV discussing the personal impact of the disease). Numerous studies have shown that messages are more credible and thus more persuasive when delivered by a member of one's own demographic (Rimal and Adkins; Bull et al.). The actual health information presented must be relevant and

applicable to the user's life; especially with the limited screen size available to a mobile site, only a certain amount of information can be presented: highly technical information, such as about how T-cells work, will not be included.

In this context, "information" does not only refer to basic facts and debunking of cultural myths, but also to motivation to change (personal and social motivation as well as perceptions of personal vulnerability) and behavior-skills training (objective ability and perceived self-efficacy). Basotho adolescents need "instruction on how to best communicate with a partner," as well as tips on how to use different assertion, negotiation, refusal, and nonverbal skills (Edgar, Noar, and Murphy 29). An application for on-demand negotiation skills, sexual scripts, and tactics as discussed earlier will take advantage of the always-available nature of mobile phones and will place an emphasis on taking "the entire sexual interaction into account" instead of just one isolated generic incident, like how to say no to peer pressure (Noar and Edgar 23).

ENTERTAINMENT EDUCATION

There are many different types of narratives, including storytelling, testimonials, and entertainment education (Hinyard and Kreuter 778). Because, as Green notes, narratives are a "fundamental mode of thinking," they "can lead to attitude change through connections with characters, reduction of counterarguing, and increases in perceptions of realism, as well as providing role models for health-promoting behavior" (S163, S178). Narratives can help members of an audience to feel more comfortable and can open up lines of communication that might have otherwise remained shut. For example, entertainment education can lead to later informal discussions about a character's behavior and whether or not that character realistically deals with risky behavior.

Entertainment education uses narratives to disseminate information as well as to demonstrate real-life scenarios of individuals avoiding risky behavior. One example is *Twende na Wakati* (Let's Go with the Times) in Tanzania. This drama uses some characters to show risky behavior (e.g., "a highly promiscuous truck driver who does not use condoms and who ultimately becomes sick with AIDS," highlighting the cultural tendency toward polyamory), and other characters to serve as positive role models (e.g., the truck driver's friend "who warns him about

AIDS and tries unsuccessfully to get him to change his sexual behavior, as he himself has done"), thereby telling both sides of the story as well as shedding light on the gray in between (Vaughan et al. 86). As Petraglia notes, these types of interventions "using narratives naturally lend themselves to creating the psychological space individuals need to integrate new information about new behaviors into an existing web of associations, cause-effect relationships, and experiences" (180). Watching one character, like the truck driver's friend, negotiate his way out of risky situations can give members of the audience tricks to use in their own lives, as well as a means to begin dialogue with their peers. Watching others deal with situations that they themselves might face increases the audience's self-efficacy, and as Petraglia et al. note, as "self-efficacy beliefs increase, people are more willing to attempt behaviors and to persist in behavior change efforts in the face of setbacks" (386).

Entertainment education will be included on the MPHO site as a regularly posted serial drama. The MPHO site might make use of existing entertainment education, such as regional soap operas, or a new drama might be created. Depending on funding resources and mobile-phone capabilities, the drama could be in audio or video format. What is important is that the drama is posted regularly so that users have a chance to connect with the characters and so that they return to the site on a regular basis.

PERSONAL NARRATIVES

Personal narratives, such as testimonials, can convey safety, value, and freedom. In this sense, rhetoric is not only an intent to change, but an invitation to understand (Foss and Griffin). This is known as invitational rhetoric: "Invitational rhetoric constitutes an invitation to the audience to enter the rhetor's world and to see it as the rhetor does" (Foss and Griffin 5). Change is not the purpose, but occurs as a "result of new understanding and insights gained in the exchange of ideas" (Foss and Griffin 6). For example, a heartfelt video testimonial of an HIV-positive person in the user's peer group might help move that user from the precontemplation to the contemplation stage. Personal narratives will be included on the MPHO site as part of the tailored media, and, as mentioned earlier, the narratives presented to a user will be matched to that user's demographic and state of change for optimal impact.

TAILORED MEDIA

In addition to tailored video narratives, tailored graphics will also be included on the site. As an example, see the series of sexual network graphics provided below. These graphics are based on Epstein's concept of the sexual superhighway: "People must be made aware of the dangers of long-term concurrency and the risks this sexual system poses even to faithful people and those with few sexual partners" (254). Because of the importance of this concept, this series of graphics will be accessed separately from the rest of the media (see Figure 2: Example Navigation Icons).

There are two versions of each graphic: one for females (on left, bordered in red) and one for males (on right, bordered in blue). In the first graphic, a couple is identified in the top left corner. One member of the couple is faithful (the girl is faithful in the female's graphic; the male is faithful in the male's graphic), and he or she thinks his or her partner is, too. However, that partner has another lover in town, who participates or has ties to someone participating in transactional sex, and so on. This is a realistic example of a sexual network in Lesotho. Each person might only have two long-term partners and thinks that his or her partners are faithful.

Figure 3: Sexual Network Graphic 1 of 5

What happens in the second graphic, though, is that one of the members of the network becomes infected (photos of HIV-positive adolescents bordered in red, starting with the bottom-most photos).
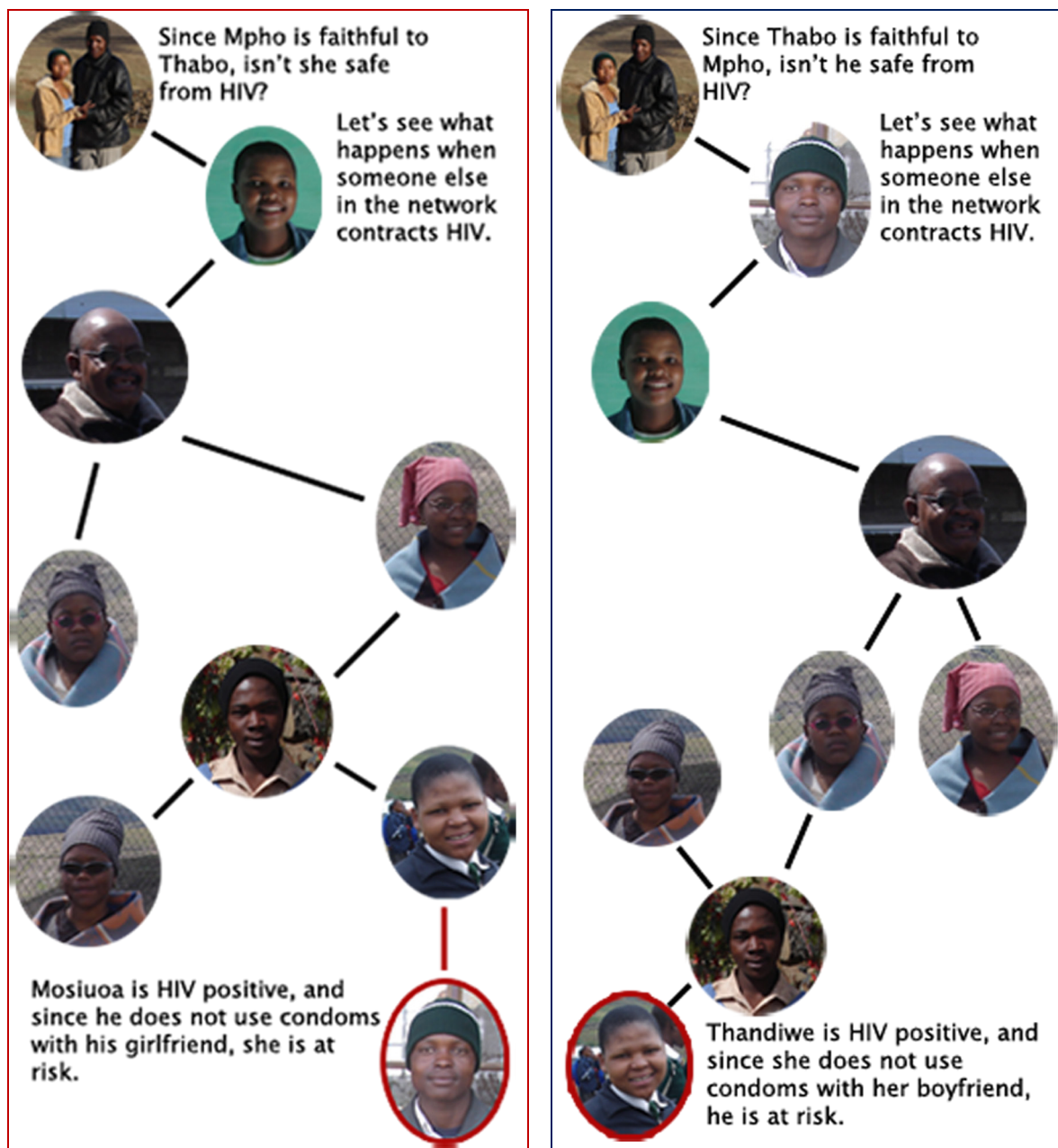
Figure 4: Sexual Network Graphic 2 of 5

The third graphic shows that person transmitting HIV to his or her partner (indicated by red lines). Because the viral load is highest shortly after infection, that partner quickly transmits HIV to the next partner, who passes it to his lovers, and so on.
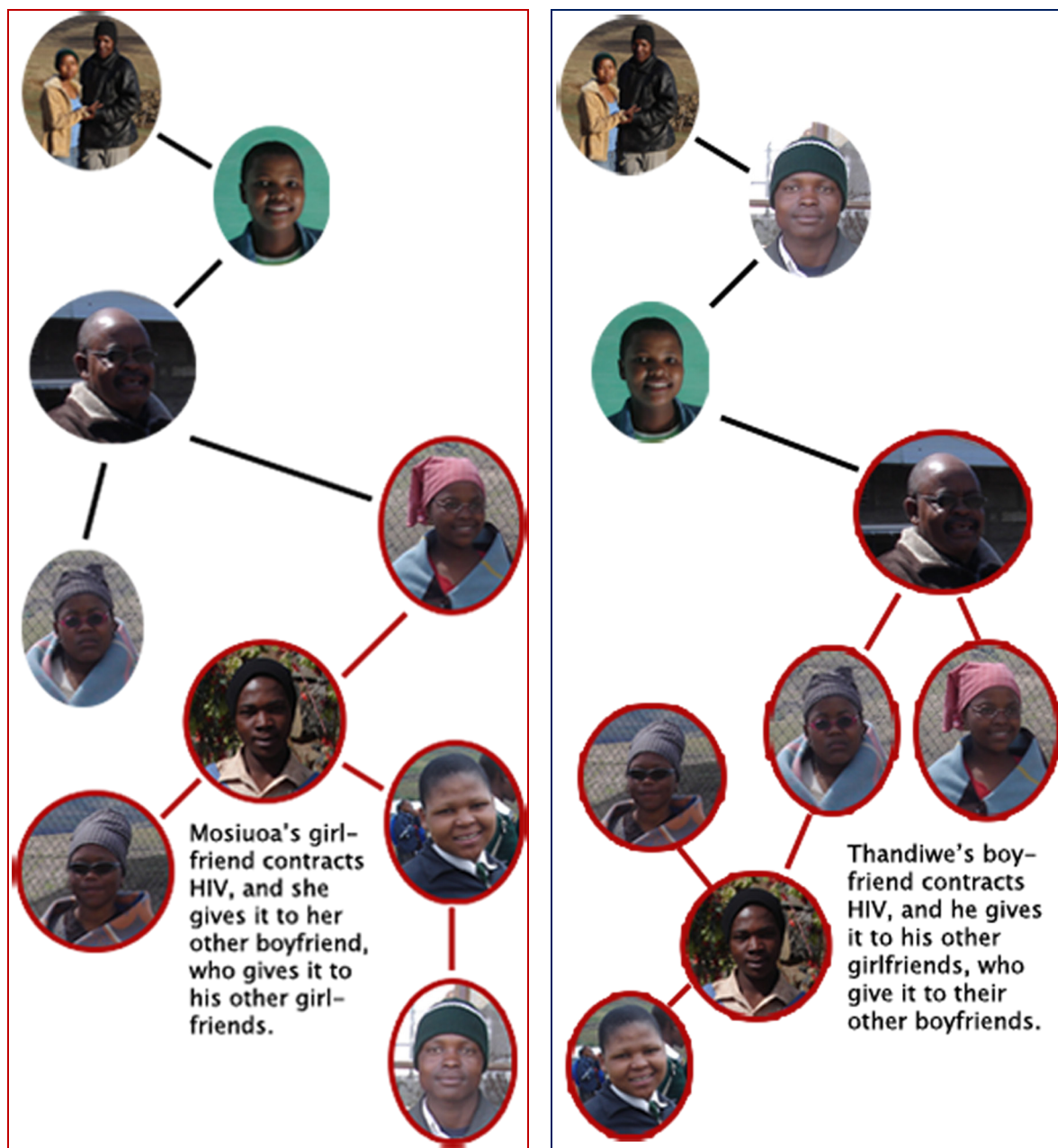
Figure 5: Sexual Network Graphic 3 of 5

In the fourth graphic, you can see how even those who are faithful to one partner and one partner only can be vulnerable to HIV infection.
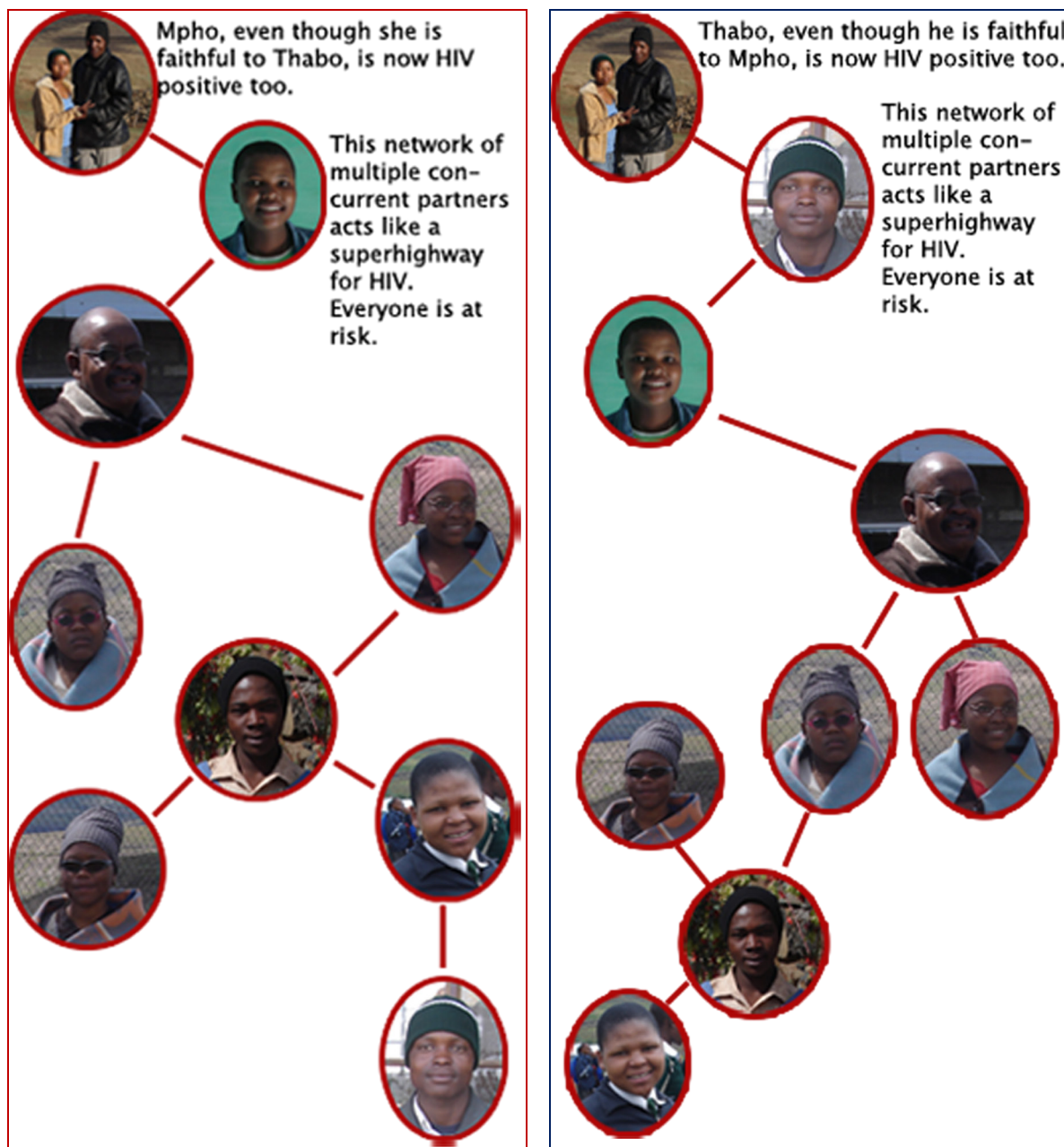
Figure 6: Sexual Network Graphic 4 of 5

The final graphic illustrates the only way to remain safe: remove yourself from the sexual network and, as a couple, remain faithful to one partner and one partner only. This type of message will be more effective for this particular audience than an abstinence-only message. Not many interventions currently advocate delay of sexual debut or reduction of the number of

current partners, which are both vital to reducing the number of new HIV infections (Noar et al., "Review of Interactive Safer Sex Web Sites").
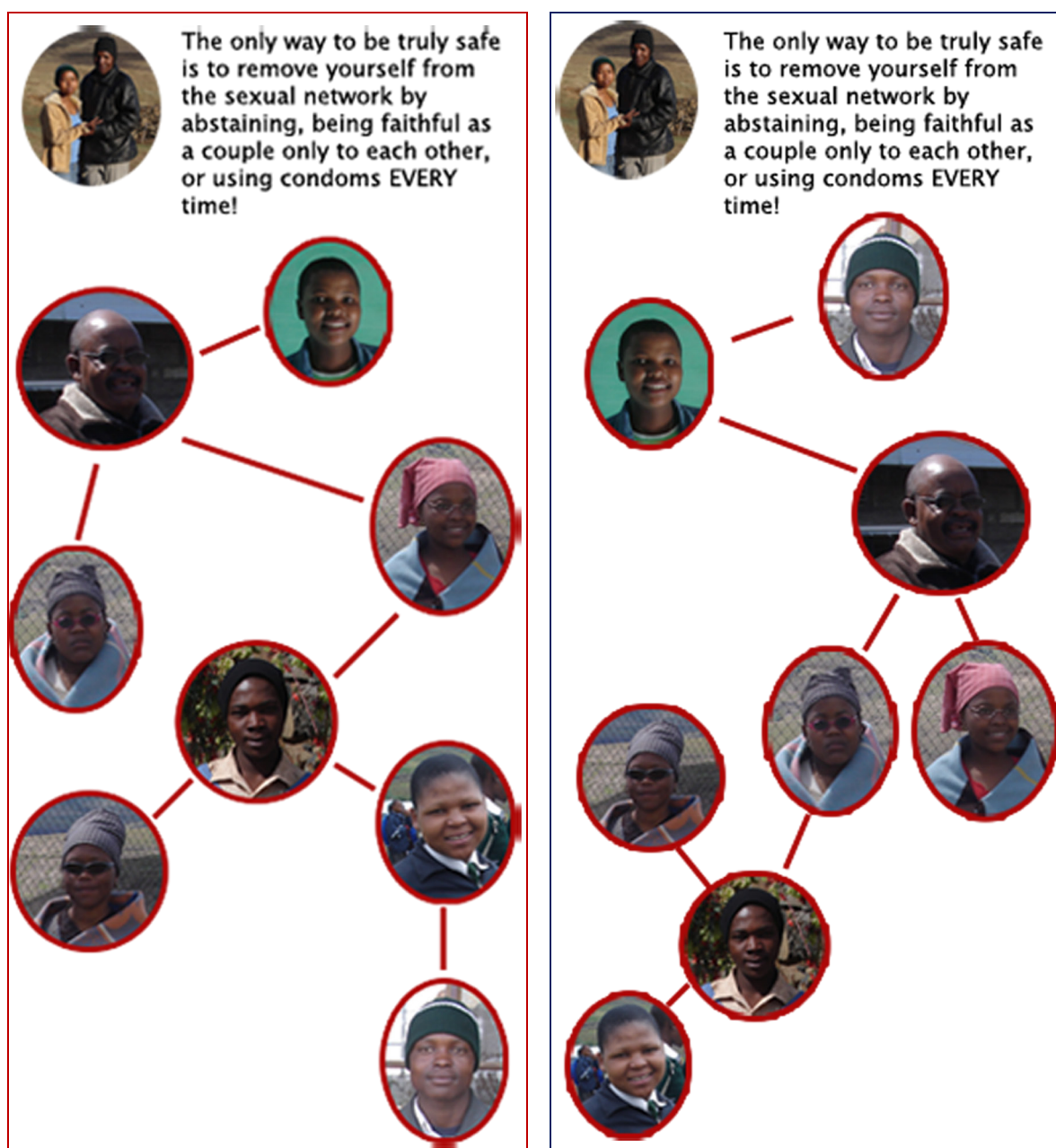
Figure 7: Sexual Network Graphic 5 of 5

EXISTING RESOURCES

In addition to using original graphics, video, and other content, the MPHO site will utilize existing resources. Information regarding local face-to-face programs and support groups will be

accessible, existing entertainment-based programs can be posted on the site (such as installments in radio/television serial dramas), and links to current initiatives can be provided. The MPHO site will also provide an application that will allow users to enter their village and district to receive a list of local resources and an optional map that locates local hospitals, clinics, and testing facilities; the graphical map is optional because some users might not be able to download images due to network speed or the cost of airtime.

COMMUNITY FORUM

Site applications will be used to create a community of users and to establish a forum for peer education, allowing for more open communication among adolescents. Tapping into social networks is important because "audiences interpret their world and live and struggle in the complexes of social networks and everyday experiences that bind them" (Dervin and Frenette 72). The forum bulletin boards will be moderated closely to prevent the spread or reinforcement of misinformation and to provide adequate support to those with questions: a health-care practitioner, such as a nurse, will be hired to act as community moderator.

INTERACTIVE GAME

Also included on the site will be at least one interactive game that will allow users to role-play for behavior skills training. The use of video games in an interactive health-communication intervention is an intriguing proposition. Video games mix the aspect of interactivity with entertainment education, and they are, "by their nature, rhetorical. They captivate their audience and intrinsically motivate players so that they start playing and are persuaded to keep playing" (Walz 101). These types of games are gaining popularity (for example, see Games for Change). Something suitable for inclusion in Project MPHO would be a role-playing game where the user would have to navigate through real-life situations, applying (or not applying) negotiation skills so that he or she can vicariously experience the benefits (or consequences). Successfully completing such a game would increase the user's self-efficacy.

CHAPTER 10: CONCLUSION

My hope is that this thesis has demonstrated why rhetoric is vital to the conversation surrounding behavior change, especially in regards to the HIV risk behavior of Basotho adolescents. Rhetoric is not partisan politics. It is neither innately inflammatory nor derogatory. It is not always used for manipulation. It is neither static nor passive. Rhetoric is inextricably both a hermeneutic tool and an embodied practice—and being a rhetor means employing one's knowledge of rhetorical theory to analyze existing arguments and texts and to use that analysis to create something meaningful.

Rhetoric has its hand in all aspects of effective interventions, from audience analysis to interface design to credibility and authenticity. It creates the middle space where rhetors can meet the members of the audience, and digital rhetoric in particular allows for co-creation and cooperative efforts. Rhetoric instructs us on how to use narratives to create rapport with the audience and helps us create effective advocacy campaigns. Rhetoric matters.

To make an impact in the world around us, all of us involved in rhetorical studies must look beyond the walls of the English department: "Interdisciplinary approaches are essential for future research to explore and consider the comprehensive context in which adolescents choose HIV risk behavior" (Mallow et al. 177). *Kairos*—our opportune moment—is here, and we have knowledge and skills that can complement other disciplines to truly make a difference. I firmly believe that, with the help of behavior-change and health-communication theories, rhetoric has the ability to create arguments that will move members of an audience to action and that its application in Project MPHO will aid in the fight against HIV/AIDS in Lesotho.

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CURRICULUM VITAE

Allison Matlack Pranger

Returned Peace Corps Volunteer with experience as a writer and editor in numerous fields, including technical writing and media publishing. Professional experience in corporate and non-profit sectors with diverse strengths, including layout and design skills and cross-cultural sensitivity. Proven track record in project management and program coordination for individuals and groups. A quick study with strong interpersonal communication skills to foster rapid rapport with persons from entry to executive levels. Familiarity with major social networking platforms and new social media.

■ Technical Writing and Editing	■ Grant Writing	■ Copy Editing
■ Adobe Framemaker	■ MS Office (97-2003 and 2007)	■ Adobe CS4
■ Trisoft CMS	■ XML / DITA	■ MS SharePoint

EXPERIENCE

Red Hat   2011 – Present
Content Author II   Raleigh, North Carolina
Responsible for working with SMEs to create knowledge assets for the Red Hat Customer Portal. These assets, consisting of tech briefs and other content types, are strategically important to the value proposition Red Hat offers its customers. Work to develop original content as well as to edit and review content written by SMEs.

ManTech   2009 – 2011
Technical Writer   Bridgeport, West Virginia
Wrote and edited technical documents such as requirements specifications, design documents, and project plans for Global Science & Technology, Inc. Managed documentation in a SharePoint repository. Co-administrated the GST Facebook page and managed the iLab Twitter site. Designed and built the first version of the Innovation Lab website.
- Served as sole writer/editor on the project
- Set standards for document templates and styles to be used throughout the project

Platinum Solutions   2009
Technical Writer   Bridgeport, West Virginia
Wrote and edited technical documents such as installation plans, design documents, and project plans for the Federal Bureau of Investigation. Kept meeting minutes and prepared presentations.
- Granted Secret Clearance
- Trained new technical writers as they on-boarded for the project
- Received positive feedback for technical expertise and ability to learn quickly

NetApp   2008 – 2009
Technical Writer   RTP, North Carolina
Wrote and edited technical documents including installation guides, release notes, hardware configuration guides, and web pages for a network storage company. Worked closely on a daily basis with engineers to update and create content and translated technical subject matter into user-friendly information.
- Integral in planning Host Utilities document migration from Framemaker to XML / DITA
- Consistently received positive feedback from engineering and management
- Hired as entry-level and was recognized for promotion one year later based on ability to learn technology and writing practices quickly and excellent rapport with engineers / team members

Peace Corps   2005 – 2007
Education Volunteer   Mokhotlong, Lesotho, Southern Africa
Worked as an ESL teacher in a secondary/high school for two years; helped the students, school, and community with secondary projects including grant writing, facilitating workshops, coaching volleyball, and teaching HIV/AIDS prevention and care, among others.
- Formed the first school library with help from the U.S. Embassy
- Received funding from PEPFAR to co-produce a booklet on female adolescent health
- Taught students aged 12 – 28 in classes ranging from 55 to 91 students each

Parkway Publishers, Inc.   2004 – 2005
Editor and Intern   Blowing Rock, North Carolina
Worked as a copy editor for fiction and non-fiction manuscripts and communicated with authors about their work.
- Was asked to remain for pay after completion of internship

High Country Student Publishing   2004 – 2005
Copy and Design Editor   Boone, North Carolina
Worked as an unpaid editor for student organization at ASU.
- Designed, edited, and laid out the spring 2005 edition of *The Appalachian Anthology*

The Rhododendron   2004 – 2005
Copy Editor   Boone, North Carolina
Worked as assistant copy editor for the ASU yearbook.

Habitat for Humanity   2004
Volunteer Newsletter Writer/Editor   Boone, North Carolina
Co-wrote, edited, designed, and laid out the summer and fall 2004 newsletters.

The Appalachian Anthology; Boxcar   2004 – 2005
Contributor   Boone, North Carolina
Poem published in the spring 2004 edition of the anthology and two published in the fall 2005 edition of the poetry chapbook *Boxcar*. One poem and one short story published in the spring 2005 edition of the anthology.

EDUCATION
West Virginia University   *In Progress*
Master of Arts: Professional Writing and Editing   Morgantown, West Virginia
                                                                    Current GPA: 4.00

Appalachian State University   2005
Bachelor of Arts: Honors English, summa cum laude (Creative Writing)   Boone, North Carolina
Minor: Communications (Journalism)   GPA: 3.97

Honors:
Dean's and Chancellor's Lists: fall 2003, fall and spring 2004, and spring 2005
Honor society memberships: Phi Eta Sigma, Sigma Tau Delta, and Alpha Chi

Professional Training Courses:
- Red Hat Enterprise Linux Troubleshooting   Red Hat, Oct. 5-7, 2011
- Project Management Tools & Techniques   Cadence Management Corp., Sept 9-10, 2008
- Effective Communication   Effective Training Associates, Inc., Sept 18, 2008