EDUCATING

GLOBALLY COMPETENT CITIZENS

A TOOLKIT

SECOND EDITION

Contents

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American Democracy Project

American Association of State Colleges and Universities

Foreword

The Global Engagement Initiative is one of seven activities in the Civic Engagement in Action Series, a set of national programs designed to support and reinforce the work of the American Democracy Project (ADP). Established in 2003 as a joint effort of the American Association of State Colleges and Universities (AASCU) and *The New York Times*, ADP emphasizes the role of public colleges and universities in preparing the next generation of informed, engaged citizens for our democracy. Now involving more than 240 colleges and universities throughout the United States, ADP has produced hundreds of campus activities, programs and curricular changes.

To support the work of the participating campuses, AASCU and *The New York Times,* ADP's Civic Engagement in Action Series Initiatives serve as laboratories for developing new models, approaches and materials for fostering civic engagement. These national initiatives tackle a variety of topics and approaches as diverse as the Stewardship of Public Lands, a study of political conflict at Yellowstone National Park; Deliberative Polling, a set of deliberative polls involving campus and community members; and America's Future, addressing the U.S. fiscal crisis of deficit and national debt. Each of these efforts includes an external partner, a set of selected AASCU member campuses, and a special focus. The goal of each of these programs is to create new approaches and materials that can be used by all participating ADP schools, serving as research and development centers for the larger project.

The Global Engagement Initiative began in 2006 as the Seven Revolutions Initiative, a partnership between the Center for Strategic and International Studies (CSIS)—an international policy center in Washington, D.C.—*The New York Times,* AASCU's ADP and a small group of AASCU member institutions. The goal of the Seven Revolutions Initiative, and now the Global Engagement Initiative, was to produce strategies, materials and programs to educate globally competent citizens at AASCU institutions. Several features made the Seven Revolutions program unique. First, the partnership of a major policy center and a major national newspaper provided an unusual collection of materials: policy papers and other products of the think tank; newspaper archives that extend back to 1851; and the current streaming news gathered from all over the globe. Second, a selected group of scholars took this large collection of resources and converted it into teaching materials and pedagogical approaches, utilizing their experience and knowledge of students to create lively, engaging resources and approaches that maximize student learning and engagement. Finally, these partners were all very intentional about collecting, sharing and collaboratively reviewing materials and resources to create a substantive archive of teaching and curriculum objects for use in any post-secondary classroom.

In early 2012, the Center for Strategic and International Studies, having undergone a series of changes in program leadership, decided to withdraw from the partnership as the scholars focused their efforts on creating a national blended learning course based upon the Seven Revolutions framework. The Seven Revolutions Initiative has been renamed the Global Engagement Initiative and the Seven Revolutions Scholars—the authors of this toolkit—have become the Global Engagement Scholars. The blended learning course, which this newly revised toolkit is designed to support, has been named Global Challenges: Promise and Peril in the 21st Century.

Much of the rest of ADP is focused inwardly, on our democracy or on uniquely American political and public policy issues. The Global Engagement Initiative, and its Global Challenges course, is the only one of ADP's Civic Engagement in Action Series programs to be focused internationally on preparing American citizens to be informed about world issues and capable of making judgments and taking action as American citizens about global challenges.

In the current sets of debates about the international order, many argue that the nation-state is no longer a viable concept, swept away by the forces of a global economy and transnational corporations, and facilitated by the rapid rise of the NGO sector. In this new world, those critics would argue, citizenship itself may be an outdated notion. Clearly, we all need to become more global in our perspective. Pandemics, global warming and terrorism recognize no nation-state boundaries. Yet citizens still must act, in the main, from their own circumstances as members of a particular government. We cannot carry out citizenship duties as global citizens; we cannot vote for the head of the United Nations or elect members of the World Court. We still must act as citizens of a particular country, in our case, the United States. But our inability to act as citizens, in the real sense of that word, beyond our borders, does not mean that we must not be globally competent citizens. As never before, we must now act as citizens of the United States in a rapidly changing global context. We must understand ourselves in relationship to the other seven billion people on this planet. We must understand the forces at work that imperil us all. We must understand the hopes and aspirations of others; the physical forces at work that threaten our lives and livelihoods; and the social and political forces that hold the potential to disrupt our economic and political systems. While we must act locally as American citizens, we must think globally to prepare ourselves for a future that we can only barely imagine. The adage, act locally but think globally, will be the best strategy to strengthen our democracy and protect our planet.

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Preface

This toolkit, a product of the AASCU-supported Global Engagement Initiative, is designed to provide instructors with a framework and a variety of resources to teach some of the critical global issues that are shaping the world in which we are living, and, in so doing, provide students with the knowledge, skills and dispositions to become globally competent citizens.

Some instructors may adopt the Global Challenges framework wholesale in new, multidisciplinary global issues courses or integrate it into existing courses. Others may adopt and adapt Global Challenges materials to give existing courses a new global perspective, just as some faculty from disciplines as diverse as theater, business and history have already done. Others may use this toolkit in conjunction with the Global Challenges blended learning course that is available. The Global Challenges framework, this toolkit and the blended learning course are flexible and adaptable to a variety of teaching and learning contexts.

Included in the toolkit are summaries of each of the seven global challenges. These summaries were provided by the Center for Strategic and International Studies (CSIS) in 2011 as foundations for each of the issues that CSIS terms the "Seven Revolutions." We appreciate the background information provided by CSIS. It should be noted that we did edit the CSIS summaries by replacing the "revolutions" phrasing with "global challenges" to provide consistency with the blended learning course and other materials from AASCU.

Completion of this second edition of the toolkit would not have been possible without important contributions from the Global Engagement Scholars, others at Global Engagement consortium institutions, and key individuals at partner organizations. We are also particularly grateful to Scott Augenbaugh at the Center for Strategic and International Studies and Cecilia Orphan, our erstwhile colleague at AASCU, now a Ph.D. student at the University of Pennsylvania.

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CHAPTER 1

Introduction

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T his toolkit is a product of the evolving Global Engagement Initiative to educate globally competent American citizens. Originally known as the Seven Revolutions Initiative, the Global Engagement Initiative began as a collaboration among the American Association of State Colleges and Universities (AASCU), the Center for Strategic and International Studies (CSIS), and *The New York Times.*

In addition to providing background on the initiative, this toolkit offers informational content on key global challenges using the Seven Revolutions framework from CSIS; case studies on how nine AASCU campuses have incorporated global content into their curriculum; and teaching resources and materials that can be used to educate globally competent citizens. In this chapter you'll find information about the project's partners and their activities, including the launch of the new national blended learning course, Global Challenges: Promise and Peril in the 21st Century. This chapter also offers clarification of the project's goals and objectives, an explanation of the context of the project and an introduction to the Global Challenges content.

Partners and Their Activities

Initially, AASCU, *The New York Times* and CSIS joined with seven AASCU campuses (California State University, Fresno; Fort Hays State University (Kan.); Fort Lewis College (Colo.); Northern Arizona University; Southeast Missouri State University; University of Minnesota Duluth; and Western Kentucky University) and one university system (University System of Georgia) to develop a comprehensive Internet-based repository of curricular materials and set of activities to aid faculty members in facilitating the education of globally competent citizens on college and university campuses. The project sought to increase the number of undergraduates who possess knowledge, skills and attitudes related to global issues that will enable them to act as responsible, engaged citizens.

AASCU represents more than 400 public colleges, universities and systems of higher education throughout the United States and its territories. AASCU institutions enroll more than three million students or 55 percent of the enrollment at all public four-year institutions. The American Democracy Project (ADP) began in 2003 as a partnership between AASCU and *The New York Times.* Alarmed by the declining levels of civic engagement on the part of young people in the United States, AASCU and *The New York Times* launched this national project. Believing that the purpose of higher education is to serve the public good and to prepare the next generation of active, engaged citizens for American democracy, they sought the participation of AASCU institutions in the work of citizen preparation. More than 130 university presidents responded to the initial call for participation. Nine years later, ADP has grown to more than 240 participating campuses. As ADP prepares to commemorate its 10th anniversary, its efforts to strengthen civic learning and engagement are joined by the work of its new sister organization for community colleges, The Democracy Commitment.

ADP involves national and local activities. On the more than 240 participating campuses, hundreds of events, programs and classroom activities have occurred. The American Democracy Project also sponsors a series of national initiatives, entitled the Civic Engagement in Action Series, to foster greater curricular and instructional innovation, and to drive civic purpose deeply into the core functions of the university. One of the Civic Engagement in Action Series initiatives is the Global Engagement Initiative.

Framework

The Seven Revolutions framework was originally conceived of by Erik Peterson, then director of the Global Strategy Institute (GSI) at the Center for Strategic and International Studies (CSIS), a bi-partisan policy think tank in Washington, D.C. Peterson developed a comprehensive research program to identify and analyze the key policy challenges and trends that policymakers, business figures and other leaders will face out to the year 2030. His program, "The Seven Revolutions," was an effort to promote strategic thinking on the long-term global trends that too few leaders take the time to consider. In exploring the world of 2030, the following seven areas of change expected to be most "revolutionary" were identified:

- Population
- Resources
- Technology
- Information
- Economics
- Security
- Governance

Global Engagement Initiative

The Global Engagement Initiative is a national initiative in the Civic Engagement in Action Series of AASCU's American Democracy Project. This initiative began as the Seven Revolutions Initiative—a partnership between AASCU, *The New York Times,* CSIS and seven AASCU institutions and one university system. The Global Engagement Initiative now involves 11 AASCU institutions:

- California State University, Fresno
- Fort Hays State University (Kan.)
- Fort Lewis College (Colo.)
- Georgia College
- Kennesaw State University (Ga.)
- Northern Arizona University
- Richard Stockton College of New Jersey
- San José State University (Calif.)
- Southeast Missouri State University
- University of Minnesota Duluth
- Western Kentucky University

Global Engagement Scholars

The Global Engagement Scholars are comprised of one or more faculty members from each of the campuses involved in the Global Engagement Initiative. These Scholars have: (1) clarified the goals and objectives of the initiative; (2) assembled the information and resources that are included in this toolkit; (3) offered workshops and institutes on educating globally competent citizens across the country; and (4) developed the Global Challenges course that is described below. This interdisciplinary group of faculty members has collaborated on all aspects of the Global Engagement Initiative.

Global Challenges Course

This national blended learning course is offered in the Epsilen Learning Environment and integrates pre-loaded materials such as a syllabus, learning objectives, lesson modules, quizzes and exams, assignments, a student guide, readings and videos. Using the Seven Revolutions framework to organize Global Challenges content, the courseware includes online forums, blogs, messaging, a gradebook and the capability of creating workgroups. Faculty can adopt the course as a turnkey offering or adapt it to better meet their particular needs.

The work of ADP's Global Engagement Initiative began in September 2006 with a two-day seminar at CSIS headquarters. Faculty and administrative representatives from seven AASCU pilot campuses (California State University, Fresno; Fort Hays State University (Kan.); Fort Lewis College (Colo.); Northern Arizona University; Southeast Missouri State University; University of Minnesota Duluth; and Western Kentucky University) and one university system (University System of Georgia) participated. Using the Seven Revolutions framework, the project integrated resources from CSIS, *The New York Times* and other sources into an Internet-based repository of materials for student and faculty use at colleges and universities. Global Engagement Scholars were identified from the group that participated in the preliminary seminar and were responsible for developing and testing curriculum and co-curricular events on their campuses, with the goal of later disseminating this work to all 400+ AASCU institutions.

The New York Times collaborated with AASCU, CSIS and the Global Engagement Scholars via its Knowledge Network to develop curricular resources. One of the early challenges the group faced was finding a seamless way to work together, share documents, communicate and build curriculum and courses. The Epsilen platform was identified as a way to solve the quandary of distance by providing a true Web 2.0 learning environment and a suite of tools for collaboration, networking, document management and course development. Outside of face-to-face meetings, the scholars continued their work with *The New York Times* and CSIS staff in this online environment.

Another challenge the group faced was access to *The New York Times* and CSIS content and ability to integrate the desired content into their courses. In order to support the initiative, *The New York Times* created an online repository of content—dating back to 1851—with archives, articles, multimedia, graphics and blogs that can be tailored to each of the seven key areas of challenge. CSIS content was also integrated into the repository, providing faculty with rich and deep access to primary documents, interviews and research.

The faculty scholars created a series of templates so that *The New York Times* and CSIS content could be integrated into online courses and curriculum to support the teaching of the Seven Revolutions framework across various academic disciplines. The Global Engagement Scholars have since updated the templates with content that is more current.

By working together and utilizing Epsilen, the Global Engagement team addressed three key issues: the desire to work collaboratively, the need for full access to content and the ability to integrate the resources into the curriculum. In one case, two of the institutions utilized Epsilen to form cross-institutional course sections where students discussed course content and engaged in research projects together.

Red Balloon Project
In 2011, AASCU launched the Red Balloon Project. The project seeks to collaboratively create models of undergraduate education that:

• Create a national dialogue, a repository of resources, and a collection of demonstration projects to foster innovation among public colleges and universities;

• Utilize educational technologies to better engage students in authentic learning experiences more aligned with the ways that knowledge is being generated, aggregated, and disseminated in an age of networked knowledge; and

• Provide students with the knowledge, skills and abilities they will need to become successful participants in careers, engaged citizens in a democracy and thoughtful leaders in the global society of the 21st century.

The innovative work of the Global Engagement Scholars was a natural fit for the Red Balloon Project. Building upon the collaborative work already underway, the project created a first-of-its-kind national blended learning model course. Delivered through the Epsilen eLearning Environment, which offers course administration and professional and social networking features, the course allows students to access course materials as well as *The New York Times* Digital Content Repository. Faculty can adopt the course turn-key, using all of the pre-loaded materials (syllabus, learning objectives, lesson modules, quizzes and exams, assignments, student guide, reading materials and videos). Alternately, faculty can adopt and adapt, using elements of the course that best suit their particular curricular needs while adding/ deleting content as appropriate for their own course objectives.

In order to support faculty teaching the course, as well as provide a stimulating collaborative environment with colleagues across campuses and disciplines, AASCU/ ADP and the Global Engagement Scholars are developing a web collaborative that will include webinars, shared resources, discussion boards and the opportunity to connect with others who are teaching or have taught the course materials. The Global Engagement Scholars offer pre-conference workshops at the annual ADP National Meeting each summer, in addition to an institute offered each fall. Moreover, Global Engagement Scholars may be available to deliver presentations or workshops on college campuses depending upon interest and availability.

The American Democracy Project, in conjunction with AASCU's Red Balloon Project, views the Global Challenges course as a model for collaborative blended learning (hybrid of online and in-person) courses created by groups of faculty members from different institutions working together.

Global Engagement Scholar Campuses
Representatives from 10 AASCU campuses and one system were instrumental in implementing the Global Engagement Initiative:

- California State University, Fresno
- Fort Hays State University (Kan.)
- Fort Lewis College (Colo.)
- Georgia College
- Kennesaw State University (Ga.)
- Northern Arizona University
- Richard Stockton College (N.J.)
- Southeast Missouri State University
- University of Minnesota Duluth
- Western Kentucky University
- University System of Georgia

The primary representative from each institution has been termed a "Global Engagement Scholar." San José State University, the newest Global Engagement Initiative member campus, joined the initiative in April 2012.

Representatives from AASCU headquarters, the participating AASCU institutions, CSIS and *The New York Times* met 17 times in the past five years. During these meetings and in the time between meetings, the Global Engagement Scholars have: clarified goals and objectives for the project; refined assumptions about students and the context in which education will occur; created content and teaching/learning activities in the curriculum; and developed plans for implementing and evaluating the project. They have also tested materials and strategies in their own courses, worked with other faculty on the participating campuses to field-test the materials, and pilot-tested the blended learning model course. The Spring 2012 pilot campuses for the blended learning course were Fort Hays State University (Kan.), University of Minnesota Duluth, Spring Hill College (Ala.), Thomas Edison State College (N.J.) and San José State University (Calif.). This toolkit is one culminating product of the scholars' work.

The previous version of this toolkit, published in 2010, served as a foundation for offering six professional development institutes on educating globally competent citizens. More than 200 faculty members and administrators attended these institutes, and many returned to their home campuses to create innovative courses and programs. The Global Engagement Scholars are continually updating the national blended learning course that can be used as an online textbook for courses featuring a global perspective or content. This course, *Global Challenges: Promise and Peril in the 21st Century,* incorporates many of the ideas and resources from this toolkit. The Global Engagement Scholars are also presently adapting the material for launch as an e-book. The e-book version of the Global Challenges material will include access to all the rich content of the course in Epsilen, but will not include the course management system, assignments, tests and quizzes associated with the blended learning course. This toolkit will be an excellent companion to the e-book.

Global Engagement Initiative Goals and Objectives

The partner organizations and campuses were drawn to the Global Engagement Initiative because of the critical need for citizens to be globally competent. This need is all the more imperative given the relative lack of global proficiency developed in students at all levels of our educational systems. On the one hand, citizens of the United States and other countries are inextricably linked with one another because of economic, social and political integration. On the other hand, youth in the United States are relatively uninformed about key current and future issues that face the world as a whole (Roach, 2006).

Early activities of the partners focused on clarifying the goals and objectives of the project. The goal of the Global Engagement Initiative is to educate globally competent citizens at AASCU institutions. For the purpose of this project, a globally competent citizen is defined as a person who possesses the knowledge, skills and attitudes to be an engaged, responsible and effective citizen of the United States while living in a globally interdependent society. In the context of this project, the goal of colleges and universities is to provide educational opportunities that maximize the likelihood that all graduates acquire the characteristics and dispositions of a globally competent citizen.

In an effort to identify the global competencies that university students should have upon graduation, 21 individuals from the institutions led by the initial Global Engagement Scholars were interviewed in late 2006. These individuals identified a set of knowledge, skills and attitudes that university students should acquire in college to become globally competent citizens:

■ **Knowledge**—Upon graduation students will be *able* to:

- Describe important current events and global issues (e.g., environment, economic, political, health, population).

- Understand and analyze issues and events in the context of world geography.

- Explain how historical forces impact current events and issues.

- Describe the nation/state system with its strengths and limitations.

- Describe cultures from around the world, including religions, languages, customs and traditions.

- Identify transnational organizations (e.g., NGOs, multinational corporations) and their impact on current issues.

- Explain the interdependence of events and systems.

- Describe how one's own culture and history affect one's worldview and expectations.

■ **Skills**—Upon graduation, students will be *able* to:

- Obtain relevant information related to the knowledge competencies listed above.

- Analyze and evaluate the quality of information obtained.

- Think critically about problems and issues.

- Communicate effectively verbally and in writing.

- Communicate and interact effectively across cultures.

- Speak a second language.

- Take action to effect change, both individually and with a team.

■ **Attitudes**—Upon graduation, students will be predisposed to:

- Be open to new ideas and perspectives.

- Value differences among people and cultures.

- Be intellectually curious about the world.

- Be humble, recognizing the limitations of one's knowledge and skills.

- Reflect on one's place in the world and connection with humanity.

- Engage in an ethical analysis of issues and have empathy for one's fellow human beings.

- Feel a sense of responsibility and efficacy to take action based on ethical analysis and empathy.

The competencies identified in the interviews overlapped significantly with other efforts to examine global competence and citizenship, including those identified by Hunter, White and Godbey (2006) and by Siaya (2003).

Context for the Project

Becoming a globally competent citizen and achieving the competencies described above can best be achieved in the context of comprehensive internationalization of an entire college or university campus. The American Council on Education suggests that an internationalized campus should include 10 elements:

1. Commitment to internationalization is articulated in the institution's mission, goals and objectives;

2. The local, state and broader environment supports internationalization efforts;

3. The institution has a clear strategy to accomplish its mission and goals related to internationalization;

4. Structures, policies and practices are aligned with articulated international mission and goals;

5. Both the curriculum and co-curriculum promote international learning;

6. Study and internships abroad are available and encouraged;

7. The campus has relationships with institutions abroad for instruction, research and service learning;

8. Internationalization is an integral part of the campus culture;

9. Communication and synergy are present among international components on campus; and

10. The campus has a comprehensive internationalization plan incorporating the elements above. (Olson, Green and Hall, 2006).

The current Global Engagement Initiative primarily focuses on developing curricula to support globally competent citizenship. Developing other elements of internationalization described above will enhance the ability of the curriculum to achieve identified global competencies. Study abroad and service learning at both the local and international level can be key elements of moving toward global competence but are largely beyond the scope of this project.

Additionally, AASCU institutions vary widely across six Carnegie Classifications. These institutions:

• Have small, medium or large student populations;
• Are located in urban, suburban or rural areas;
• Are comprehensive in their coverage of the various academic disciplines; and
• Are public institutions that offer baccalaureate and master's degree programs.

This toolkit is one effort to expand the work done by the Global Engagement Scholars to all 400+ AASCU institutions and to other postsecondary and secondary institutions who are interested in educating globally competent citizens. This toolkit is intended to serve as a resource for introductory and upper division courses that focus on global issues, such as the Seven Revolutions, or for infusing international content across the curriculum in varied disciplines. It is an excellent companion resource for faculty using Global Challenges: Promise and Peril in the 21st Century in either its blended learning course format or its e-book format.

Content

CSIS's Seven Revolutions framework encompasses most of the key global issues facing our contemporary and future world. However, based on the goals, objectives and context of the current project, an expansion of these seven trends was developed by participating faculty and appears below:

Revolution 1: Population
• Growth
• Aging
• Migration
• Urbanization

Revolution 2: Resources
• Food
• Water
• Energy
• Climate

Revolution 3: Technology
• Computation
• Biotechnology
• Nanotechnology
• Transhumanism

Revolution 4: Information
• Data Growth
• Access
• Social Networking
• Information Integrity
• Knowledge

Revolution 5: Economic Integration
• Globalization
• Emerging Players
• Debt
• Inequality and Poverty

Revolution 6: Security
• Asymmetric Warfare
• Hybrid Warfare
• Cyber Warfare

Revolution 7: Governance
- National Governments
- Failed States
- International Organizations
- Multinational Corporations
- Non-Governmental Organizations

CSIS, other NGOs and international organizations provide a growing reservoir of print, audio and video resources that can be used to augment global issues content. These organizations also provide regular updates on relevant topics through RSS feeds and other mechanisms.

The New York Times' extensive worldwide news reporting and archives provide current content and historical context for considering global issues. *The New York Times* can also provide near-daily updates on relevant topics through RSS feeds and has significantly expanded its multimedia materials. Other content can supplement and complement the resources from CSIS and *The New York Times.* The United Nations, National Public Radio, BBC, Al Jazeera and many non-western resources offer varied perspectives.

Overview of the Toolkit

The purpose of this toolkit is to provide faculty with basic background knowledge about key trends affecting the global future, ideas for teaching this content in a variety of settings, and resources and teaching materials that can assist in educating globally competent citizens. The next chapter of the toolkit includes an overview of key content related to the framework originally developed by the staff at CSIS as Seven Revolutions. A chapter providing case studies of how the framework has been used on Global Engagement campuses follows. In the final two chapters, Global Engagement Scholars share the teaching materials and resources that they have found most helpful in educating globally competent citizens on their campuses.

This printed toolkit is intended for use in conjunction with regularly updated, relevant online resources. The printed version of the toolkit provides the best current information on this issues as of April 2012, but the information and resources necessary to effectively educate globally competent citizens are constantly changing and being enhanced. On a daily and sometimes hourly basis, *The New York Times* website provides current updates on these topics, and faculty are encouraged to use the online Times content to not only supplement their own knowledge, but also as a resource for students.

A variety of updated resources for teaching Global Challenges content can be identified in Diigo (*http://groups.diigo.com/group/seven-revolutions-toolkit*), and the Global Engagment: Educating Globally Competent Citizens Facebook page (*https://www.facebook.com/7Revolutions*) contains additional resources identified by toolkit users. A number of these types of resources can be found in

the "Teaching Resources" section of this toolkit. For more information about Global Challenges: Promise and Peril in the 21st Century, visit the website at *www.aascu.org/ GlobalChallenges/* or email *GlobalChallenges@fhsu.edu*.

Conclusion

The Global Engagement Initiative addresses a critical need in our society—citizens who can make informed and thoughtful judgments about the issues confronting both our country and the planet in an increasingly complex, interdependent global society. We hope that this AASCU project, supported by *The New York Times* and inspired by CSIS, will provide crucial resources to all AASCU campuses, as well as the rest of American higher education, to enable universities to prepare the next generation of undergraduates to serve as wise stewards of our planet.

Internet Resources
- American Association of State Colleges and Universities (Global Engagement link)
  http://www.aascu.org/programs/adp/GlobalEngagement/
- Global Challenges: Promise and Peril in the 21st Century (national blended learning course)
  http://www.aascu.org/GlobalChallenges/
- Center for Strategic and International Studies (Seven Revolutions site)
  http://csis.org/program/seven-revolutions
- *The New York Times*
  http://www.nytimes.com/
- Diigo Seven Revolutions
  http://groups.diigo.com/group/seven-revolutions-toolkit
- Global Engagement: Educating Globally Competent Citizens Facebook page
  https://www.facebook.com/7Revolutions
- Seven Revolutions Wiki
  http://aascu7revolutions.pbworks.com
- Epsilen Course Management System
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CHAPTER 2

Global Challenges: Seven Revolutions Shaping Our World

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Introduction

Have you considered how a projected global population of 9 billion people by the middle of the century will impact your life? What are the challenges for the availability of food, water and energy resources? How will society balance the benefits of technological innovation and advanced communication with the challenges of cyber security? How will global economic integration and governance affect trade, markets and commerce overall?

These questions are among the many that arise when one begins to examine seven enormously significant global issues and trends that are shaping the world in which we live. The seven revolutions, identified by the Center for Strategic and International Studies and used here as a framework for studying global challenges, are: population, resources, technology, information, economic integration, security and governance.

Population

Over the next 20 years, the vast majority of the world's population growth will occur in the developing world, in nations least capable of supporting this growth either politically, environmentally or economically. The developed world will face its own set of challenges, including declining populations, rising aging segments and changing migration patterns.

It is difficult to imagine the remarkable changes that have occurred historically when it comes to population, so consider how humanity arrived at this number. By the time Christopher Columbus reached the New World, the global population was about 500 million.[1] In October of 2011, the total population increased by a factor of more than 14, totaling 7 billion; the majority of this growth occurred between World War II and the present. By 2030, the global population will likely reach 8.3 billion, and by 2050 there will be around 9.3 billion people on Earth. This addition of 2.3 billion people to the global family between now and the middle of the century will strain economic and social systems and put unprecedented pressure on the allocation of scarce resources.[2]

Developing Countries

The eight most populated countries are expected to account for the majority (51.2 percent) of the world's population in 2050. Seven of these countries (India, China, Nigeria, Indonesia, Pakistan, Brazil and Bangladesh) are from what is now called "the developing world."[3] Over the next 20 years, 77 percent of population growth will occur in countries in sub-Saharan Africa and South Asia—some of the poorest, least-stable parts of the world. The population in the least developed countries—those 49 countries defined by the United Nations as the poorest in the world—is expected to double by the middle of the century, from 0.85 billion in 2010 to a projected 1.7 billion in 2050.[4]

While the growing populations are a daunting challenge, disease and younger populations have devastated underdeveloped parts of the world. The HIV/

AIDS pandemic has plucked working adults out of their prime, leaving behind millions of orphaned children and tearing a hole in the social fabric of these developing nations. In the least developed countries, the youngest segment of the population—newborns to 14-year-olds—comprises 40 percent of the population (the world average is just 26.7 percent).[5] Countries in the Middle East and Africa also have extremely high youth dependency ratios—the percentage of young people dependent upon the working age population, which limit economic growth by forcing governments to devote a high percentage of their resources to social programs for families.[6] History alerts us to the dangers of a teeming youth population. Countries that experience instability, terrorism and violence often have the youngest populations on the planet, and based on their age structures, some scholars wonder if they can have lasting democratic transitions.[7]

Developed Countries and Aging

In much of the developed world, by contrast, population levels are beginning to plateau, or even decline. By 2030, at least 19 countries, primarily in Eastern Europe, will be less populous than they are today, and one in four people in Western Europe will be over the age of 65; in 1950, the corresponding number was one out of every 10.[8]

The demographic transformation now sweeping the globe is both a cause and consequence of development.[9] Advances in science and technology have allowed many to enjoy longer life-spans than their parents and grandparents ever imagined. However, when a population grays and shrinks at the same time, as will be the case in large parts of the developed world, profound social, economic and political changes are inevitable. In these countries, an increasing share of taxes will go to the rising cost of entitlement spending for the elderly. As the workforce shrinks, gross domestic product (GDP) will also contract, further limiting the ability of governments to make good on promises of social security and welfare spending. With time, aging nations will be forced to look beyond their borders for young laborers, setting the stage for seismic social and cultural shifts.[10]

Migration and Urbanization

Droves of people will continue to move into urban centers in pursuit of higher paying jobs and better access to services. By 2050, almost 70 percent of the world's population will live in cities, representing an influx of almost 3 billion people over the next 40 years.[11] While urbanization presents an opportunity for rural workers to modernize their skills and improve their livelihoods, rampant urban poverty could result if governments are unable to support such unprecedented growth. Migration from the countryside may threaten food security, as a smaller number of farmers will be producing agricultural goods for a larger number of urbanites incapable of growing their own food.

While some will move from the countryside to the cities, others will leave their home countries altogether, creating large diaspora communities of displaced individuals across the globe. Currently, the four largest diaspora communities globally are

China, India, the Philippines and Mexico.[12] The poor will continue to immigrate to richer countries. They may do so in higher numbers, though, as developed countries become more desperate for working-age adults. Governments in the developed world may face serious challenges, however, if they are unable to reconcile the needs and desires of their native populaces with the needs and desires of immigrant groups.

In recent years, migration trends indicate that future projections for the number of migrants worldwide may begin to fall. Between 1955 and 2005, the world migration rate grew steadily. Today, it is beginning to fall, and UN data project that by 2050, migration rates may fall to equal those before 1955.[13] As aging countries—like many of those in the Organization for Economic Cooperation and Development (OECD)— rely on immigrant labor populations to supply a workforce base and increase population, a fall in migration rates will put these areas under increased stress in the future.[14] Reasons for the change in migration rates include more available and widespread access to the Internet and technology, which allows people to stay in their own countries, instead of emigrating in order to work. Also, agencies like the USAID Global Diaspora Alliance work to increase the flow of diaspora resources to stimulate economic growth in migrants' home countries. These boosted economies encourage potential migrants to remain in their respective homelands.[15]

Discussion Questions

What difficulties—from retiring baby boomers in the United States to a graying China, to the massive overhang of Europe's elderly—can private corporations, governments and other sectors expect as the aging revolution unfolds across the globe? How will changing demographics affect workforce composition? Retirement age? Pension outlays? Taxation? Immigration? Economic growth? How can governments, corporations and nongovernmental organizations work together to address these issues?

Immigration already accounts for over 60 percent of population growth in developed countries. Do you believe that governments in developed countries are ready to deal with the massive immigration that will accompany, in many cases, a sharply decreasing number of citizens? What recent world events encourage optimism or pessimism in this regard?

According to the United Nations Population Division, by 2050 the four most populous countries will be India, China, the United States and Nigeria. What will this mean for the geopolitical balance of power? Pakistan is a prime example of the overarching global trend of the highest population growth occurring in countries with the lowest prospects for economic development, the most dire resource scarcities, the most daunting public health challenges, and the least transparent and effective systems of governance. What will be the impact of this population growth in terms of global stability and security?

Resources

Have we reached or surpassed the limits of sustainability? What will it take to support a global population of some 9.3 billion by the middle of the century?[16] To begin addressing these questions, one must look at the strategic resources of food, water and energy and the complex interlinkages between them. How leaders meet the challenge of managing these resources will affect economic development, poverty reduction, social welfare, geopolitics, and stability and security the world over.

Food

Thanks to advances in agricultural technology in the second half of the 20th century, farmers have dramatically increased their crop yields, helping the world avert a once-predicted fate of mass starvation and malnutrition.[17] Despite this progress, 925 million people face food shortages and continue to endure poor land management, lack of infrastructure and water availability, soil erosion and environmental catastrophe.[18] Degradation, on top of sharp increases in food prices over the past decade, have left many in the developing world without the means to grow their own food. World Bank President Robert Zoellick has stated, "We have been in a period of extraordinary volatility in food prices, which poses a real danger of irreparable harm to the most vulnerable nations. . . . Food prices are the single gravest threat facing developing countries."[19]

Two other forces will drive food supply and demand over the next 20 years: the connection between rising oil prices and increased production of biofuels. In addition to diverting staple crops away from kitchen tables, the nexus of food and fuel has exacerbated this problem by increasing the supply-side cost to farmers. For instance, a 10 percent increase in the cost of crude oil now equals a 2.7 percent increase in the Food Price Index.[20] The task of moving away from these first generation biofuels is important, and could have far reaching benefits as food demand is projected to grow 70 percent by 2050.[21]

The interconnectedness of global markets, while increasing the availability of food to many, also increases the risk of communicable diseases and contagious famine. The black sigatoka (Mycosphaerella fijiensis), for instance, affects bananas, while round worm and leaf miner are killing coffee. In addition to crop diseases that kill plants, there are those that pose a threat to humans, such as the E. coli bacteria. As the global community saw in May-June 2011, outbreaks of E. coli can be disastrous, not only to victims of the disease, but also to farmers devastated by sharply decreased demand, such as the farmers in Spain who wrongfully lost millions of dollars in cucumber sales. It is estimated that in May 2011 alone, E. coli caused a decrease in the price of vegetables by 13 percent compared to previous years.[22]

Water

According to John Hamre, CSIS president and CEO, "[W]hat is now a global water challenge will soon become a global water crisis."[23] Almost 4 billion people will live in areas of high water stress by 2030 if governments and individuals do not

change their habits and use this finite resource more responsibly.[24] Today, more than 884 million people, or one out of every eight people, live without safe or reliable access to this resource.[10] Inadequate access to water is linked to malnutrition, underdevelopment and geopolitical instability, and these problems will likely persist into the coming decades unless we dramatically change our perceptions of this resource and price it accordingly. The scarcity problem is only compounded by the predicted "rise of the rest"—developing nations like China and India—and their growing appetite for consumption. Affluent individuals use upwards of 660 gallons of water per day for their personal use and in the production of the products they consume, when only 13.2 gallons per person are required for survival.[25] Future water shortages could significantly hinder economic development and precipitate serious tensions across the world. Access to improved water resources is one of the Millennium Development Goals (MDGs) for which there has been great progress. However, as of 2008, 2.6 billion people still do not have improved access to toilets or latrines, and projecting out to 2030, over 5 billion people will still not be connected with public sewage systems.[26] One of the consequences of this issue is that the World Health Organization (WHO) estimates that 88 percent of diarrheal deaths are caused by unsafe water, sanitation or hygiene.[27]

Water frequently exists in politically sensitive areas as a shared resource. Global water basins shared by two or more countries link 40 percent of the world's population.[28] Though there are potential political ramifications to using and controlling water, we have historically seen this as a source of cooperation. A super majority of transboundary river-basin-related events between 1948-1999 ended with acts of support and over 10 percent of those led to international treaties.[29] Recent evidence, however, such as the building of dams upstream in areas like politically sensitive Kashmir, has opened up new concerns in Pakistan.[30] As water scarcity problems accelerate to 2030 and beyond, expect to see a high potential for conflict over this precious resource.

Energy and Climate

Volatile oil prices and supply disruptions have led to international disputes verging on geopolitical crises in recent years, and it is likely that tensions will flare again in the future with world energy demand expected to grow almost 70 percent by 2035.[31] Despite continued pressures on the natural environment, fossil fuels will still account for almost 80 percent of world energy use as the world's primary energy supply, with renewable energy making only modest gains. Aggregate increases in alternative sources of energy will be offset by high consumption of coal, oil and natural gas driven by the astronomical rise of China and India. Together, these two countries will be responsible for more than half of the increase in energy demand by 2050.[32] Governments and private companies across the world are pouring money into energy development projects to keep up with domestic demand and to capitalize on burgeoning industries. One major study found that the United States is capable of producing enough biomass-derived ethanol—90 billion gallons annually—to displace nearly a third of gasoline use each year by 2030, though with tremendous upfront costs that make little sense when oil prices are low.[33]

The addiction to fossil fuels comes at a great cost to the environment. Recent evidence suggests that our penchant for petroleum may inflict irreversible damage, with one study finding that CO_2 emissions affect climate systems thousands of years into the future.[34] Although there are targets for cuts in CO_2 emissions by 2035, the gap between politicians and scientists is in tens of gigatons (Gt). To eliminate just 1 Gt of CO_2 is the equivalent of converting an area the size of Spain from barren land to new forest, and we will producing somewhere between 35-45 Gt of emissions by 2035.[35]

Discussion Questions

How are the strategic resources of food, water and energy interrelated? How will improved living standards increase demand for these resources? How can countries develop sustainable strategies to ensure the availability of these resources for human health and economic growth?

Despite skyrocketing demand for energy, a transition from fossil fuels to alternative sources of energy on a large scale is not expected to occur in the short term. Why? What actions could be taken to speed this transition? What is the long-term cost of a gradual versus a rapid move to alternatives?

How does poor governance in donor and recipient countries hinder the dissemination of water purification and sanitation technologies to communities in need around the globe? What steps can be taken to work around existing obstacles to governance?

Technology

We are entering an era in which the world is starting to look more like the movies we watched growing up.[36] Computers are becoming faster and more ubiquitous, medical breakthroughs are prolonging and enriching lives, and machines are becoming smaller by the day. At the same time, as new technologies become embedded in our lives, we are forced to address issues of ethics, privacy, discrimination and even basic human interaction.[37] Technology will increasingly test the ability of individuals, cultures and governments to adapt to new opportunities and dangers.

Computation

Today's computers are breaking performance records and keeping pace with Moore's Law, a doubling of chip complexity every 24 months.[38] As of June 2011, the "K" or "Kei" computer in Japan achieves computational capacities of over 8 petaflops—8 quadrillion calculations per second—making it the most powerful supercomputer in the world (and over three times as powerful as the top supercomputer from January 2011, the TIANHE-1A at the National Supercomputing Center in Tianjin, China).[39] This milestone is a testament to the performance heights new computers are reaching and it is predicted that between 2017 and 2019, supercomputers will reach speeds in the exaflops (quintillions of calculations per second) realm.[40] There are physical limitations to circuits as they are constructed

today, however, and it is predicted that Moore's Law will be valid only until 2029, after which time new technology will be required for improvements.[41]

There are also secondary effects of Moore's Law. In addition to achieving higher speeds, equivalent computers shrink in size, become less expensive to produce and use less power at roughly the same rate.[42] While there have been innovative projects, such as "One Laptop per Child," the future of mobile computing is the likely 6 billion cell phone users in 2012, with roughly three times the amount of personal computers.[43] Many of these phones possess the basic web browsing and other tools needed to consume information and perform mobile banking in areas of limited infrastructure. While this revolution has not come to all parts of the developing world, with infrastructure and device cost coming down we expect to see significant growth in these typically underserved markets.

Robotics

When we first saw Luke Skywalker's arm in *Star Wars*, or Arnold Schwarzenegger in *Terminator*, we dreamed/feared the day when these technologies would some day appear. In some sense, that day has arrived in research labs. Currently being tested by several companies are robotic limbs and exoskeletons that can lift heavy objects yet be sensitive enough to pick-up delicate objects without crushing them.[44] Many of these projects have promising developments, especially the Modular Prosthetic Limb of John Hopkins and the Deka "Luke" Arm of Dean Kamen beginning the process of clinical trials. The challenges to future projects are cost, mobile power and improving the neural interfaces (moving from pedals to neurological sensors). As we have seen with the secondary effects of Moore's Law, the first two are within the realm of possiblility.[45]

Biotechnology

The completion of the Human Genome Project, mapping the roughly 25,000 genes and sequencing the 3 billion chemical base pairs that make up the human genome, has opened up numerous paths for further exploration in biotechnology.[46] Information gained from this undertaking will pave the way for tailored drug therapies, cleaner energy sources, disease-resistant crops and more accurate forensic testing. In the next 10 years, a baby could have his or her genetic code mapped at birth to predict and begin treating future medical conditions.[47] Some experts believe that these technological advances, combined with a better basic understanding of how the human body works, will allow us to significantly alter our own bodies by incorporating machines into them, which could yield improvements in health and life expectancy, as well as mental and physical function.[48] While these advances hold great potential, they also raise profound questions, from the ethical to the existential. Is it immoral for a doctor to tell a patient that he is predisposed to a late-onset genetic disorder for which there is currently no cure? Will the use of biotechnology fundamentally alter what it means to be human?

Nanotechnology

Nanotechnology is not a science in and of itself, but rather an umbrella term for the study and development of structures, in a variety of fields, that are smaller than 100 nanometers. The potential applications for nanotechnology are diverse, ranging from medicine and materials to electronics and energy. Scientists have already made great strides in the field of nanotechnology, with more than 1,317 nano-sized products available to consumers in 2010, mostly in the fields of health and personal fitness.[49] Micro-electromechanical machines (MEMs), smaller than dust mites and formed out of microscopic gears, chains and computer chips, are currently deployed in medicine, agriculture, supply chain management, materials science and manufacturing. Nanotechnology is also proving to be a lucrative industry, one that by 2015 will contribute an estimated 1 trillion dollars to the global economy and employ 2 million workers.[50] By that time, nanotechnology will have moved from the microscopic level down to the molecular and atomic scale. Relatively little is currently understood about the safety risks associated with nanotechnology. This concern is likely to come to the fore as miniaturization is increasingly employed in the production of consumer goods.

Discussion Questions

What will happen when an individual's genome is routinely digitized and archived? Who should control such personal information? The government? The private sector? The individual? How can such information be secured? To what benefits and dangers does this information expose an individual?

In a coming age of personalized medicine—medicine based on the genetic makeup of an individual—scientists are predicting life spans of 120 years of age and beyond for children born today in parts of the developed world. How will longer, healthier lives change concepts of retirement? Of social security and pensions? This technology is unlikely to be widely available. What consequences will result from this furthering divide in access to healthcare between rich and poor, developed and developing worlds?

Only in its infancy, nanotechnology has already yielded materials harder than diamonds and technologies capable of attacking cancer at the molecular level. It will likely be a trillion dollar industry by 2020. Surprisingly, it may also be the first industry to emerge simultaneously in the developed and developing worlds. How can we begin to address the massive technological gap between the developed and developing worlds in other fields as well?

Why is it important that developed countries not simply leave behind the developing world as they continue to innovate? Is Thomas Friedman correct in his statement that information technology is bridging the gap and allowing geniuses in developing countries to "innovate without having to emigrate"?[51] Will we see the end of the emigration of skilled workers from the developing world, or more internal migration of skilled workers within it?

Information

Our world is defined more than ever before by our creation of data, what we do with it and how we process it. Communication technologies are fueling this evolution by spreading new ideas and innovations to ever-greater numbers of people each day. The best students and entrepreneurs in the world are no longer limited by geography and their countries' stage of economic development.

Data Growth

Our digital universe is rapidly growing and creating a series of new terms we have to deal with. For those of you who were brought up on using the terms kilobyte, megabyte, gigabyte and terabyte, I have a new word for you: zettabyte, or 10^{52} bytes. We crossed this threshold in 2010 when the entire planet created 1.2 zettabytes in a single year. In 2011 that number will exceed 1.8 zettabytes—enough data to fill 1.1 trillion iPads and continue to double every two years.[53] How we process, filter and make sense of these giant structured and unstructured data sets will be a fundamental challenge for the coming generations.

Access

Communication technologies are decentralizing information, allowing individuals and companies on opposite sides of the planet to collaborate and share ideas. As President Obama suggested in his 2011 State of the Union address, "The rules have changed. In a single generation, revolutions in technology have transformed the way we live, work and do business. . . . Today, just about any company can set up shop, hire workers and sell their products wherever there's an Internet connection."[54] As information technologies continue to reach new potential workers, there will be increased competition from the developing world. Unfortunately, greater connectivity also exposes organizations, governments and citizens to the risks of fraud and even cyberwarfare. We are just beginning to see how governments, like the United States, will regulate this new online environment to promote national security and protect freedom of expression.[55]

One of the emerging characteristics of our interconnected society is the notion that information should be not only available to all, but also modifiable by all. Blogs and wikis allow individuals to offer their commentaries and opinions to a wide audience while bypassing traditional news sources. Social media services often encourage users to form networks to share and distribute these new or repackaged ideas. This revolution is forcing major changes to historic print and visual media, causing recently free online content to be hidden behind pay walls.[56] While this creation of free open information repositories may reduce costs and spur development that would be impossible with traditional proprietary models, their major strength—their ability to be modified—may also be their downfall. With more people sharing more information on the Internet, it will become increasingly difficult to discern fact from fiction. While the diversification of sources of information enriches awareness of the world around us, it in no way ensures that we are learning the truth.

Education

It is estimated that young people currently entering the workforce will experience 10–14 major career changes in their professional lives.[57] As the information economy takes root, workers will be required to refine their skills and learn new ones to remain competitive; they must become lifelong learners. Workers will acquire new skills at cyber-universities through distance-learning courses tailored to meet their individual needs. Today, only a minority of the population enjoys access to higher education, with less than one-third of Americans over 25 holding bachelor's degrees.[58] It is estimated that by 2020 there will be 15 million new jobs in the United States requiring a college degree, but at current graduation rates, there will be a net gain to the labor force of only 3 million workers with those credentials.[59] Even though matriculation and graduation rates have improved over the past few decades, colleges and universities will need to embrace new technologies and promote vocational training to meet the needs of our economic future and to keep the U.S. workforce competitive.

Discussion Questions

Are work and learning becoming "the same thing"? How can basic education prepare workers for a lifetime of adaptation, retraining and continuing education? What role will the online world play in this process? How might online education level the playing field between developed and developing countries?

How has the media's objectivity been affected by the explosion of information sources? Will individuals increasingly live in worlds of their own ideological and moral construction by further isolating themselves from competing ideas? Are we entering an era of "choose your truth"? How does information technology further expand the rifts between civilizations and between individuals in the same communities? How does it bridge those divides?

Information technology has changed the context in which governments must operate. Individual citizens and groups now have the ability to quickly organize and contest or influence the direction and mode of governance. From 24/7 news to flash mobs, blogs to political tell-alls, the rapid flow of information demands rapid results from systems of governance. How has information technology compressed the ability of governments and organizations across the board to implement long-term strategic planning? How has information technology redefined sovereign and cultural borders? How can the government leverage information technology to "fight back"? What kinds of skills and resources are needed by both the people sending the message and those receiving the information?

Economic Integration

Despite the international debate surrounding economic liberalization—one that is given fodder by the current global recession—it is likely that by 2030 the world will be more economically interdependent than it is today. The BRIC countries—Brazil, Russia, India and China—and other

rapidly emerging economies will increasingly become the world's major economic players with respect to both production and consumption.

Globalization

Globalization has forced the integration of emerging and developing markets into the global economy and increased the flow of goods and human capital through trade and investment. The benefits and costs of integration to both developed and developing countries have become clear in recent decades. The Eurozone's GDP is now higher than that of the United States, a development that has encouraged European nations to join the EU and countries in other parts of the world to form competing trading blocs—the Southern African Development Community and the Eurasian Economic Community serve as notable examples.[60] Worldwide exports have increased dramatically, now representing 30 percent of GDP, up from 17 percent in the 1970s.[3] International bank lending grew from $265 billion to $4.2 trillion over the 19-year period from 1975 to 1994. People are even traveling more, with 846 million individuals trekking internationally in 2006, a 7 percent increase from 1980.[61, 62] Despite any short-term dislocations, the global market, with the help of new technologies and proactive financial institutions, is expanding to include new groups of people each day.

While some treat economic integration like a free lunch, the true effects of globalization are a mixed bag. Our world is split largely between those who have benefitted greatly from integration and those who have not. Concerns over national identity, heritage and culture have come to the forefront as more people, resources and ideas are exchanged across borders. In countries as diverse as Italy, South Africa, Indonesia, India and Turkey, restrictions on immigration enjoy the support of more than 80 percent of the population.[63] This can be viewed as a negative reaction to the effects of globalization. In this era of porous borders and complex information flows, governments are becoming more aware of security threats and strategic weaknesses. By and large, people have benefited from economic integration, but we will need to critically examine the global economic system in order to spread its benefits more broadly and to avert the protectionism, prejudice and illegal activity that can result from rapid economic integration.

Emerging Players

If they can consolidate the conditions necessary for structural growth, by 2025 the sum of the GDPs of the BRIC economies could equal half the equivalent of the G-6 countries (United States, Japan, Germany, UK, France and Italy). By 2032, assuming strong and sustained growth rates, the BRIC economies could overtake the G-6 altogether.[64] China is leading in this race to the top because of its high levels of foreign direct investment and double-digit growth rates.[65] Over the next 25 years, the GDPs of the BRIC countries will increase at breakneck speeds as they marshal their ample supplies of natural resources and human capital to economic development. However, over time, their markets will begin to appear more like those of the G-6 countries, and when this happens, growth will start to occur at a slower pace. Furthermore, in spite of this tremendous progress, in 2050 per capita income

in China will likely be only around $30,000, roughly what it is today in the West.[66] The divisions between the haves and have-nots in the BRIC countries are stark, with millions of Indians, Chinese, Brazilians and Russians excluded from the benefits of economic integration. Eventually, resource scarcities, demographic shifts, price fluctuations and political strife may prevent some or all of these countries from enjoying the prosperous future experts once predicted for them. Of the four, Russia is probably most at risk. Russia's economy is based largely on the sale of oil and is therefore subject to the vagaries of global demand and international crude prices. If the government does not diversify and invest in non-extractive industries, Russia may fall behind, leaving us with just "BIC."[67]

Poverty and Inequality

Tremendous economic prosperity experienced in recent decades has not affected all people in the same way. Globalization has failed to pull the poorest out of poverty, while in other parts of the world it has enabled the development of a middle class. Disparities exist not only between countries, but within them as well. The fact remains that a staggering 2.8 billion people live on less than two dollars a day and the richest 10 percent of the population accounts for 54 percent of total global income.[68] High levels of income inequality are bad for growth and are associated with many of the negative side effects of globalization, including high infant mortality, poor education and crumbling infrastructure.[69] The costs for basic commodities continue to fluctuate, making it increasingly difficult for the poorest of the poor to meet their daily needs. When citizens are starving or when they see their government keeping more than its fair share of national income, social stability can be threatened.

At the same time, we are witnessing the expansion of the global bourgeoisie. When countries plug into the international system, their citizens are often able to attain better jobs with better pay. To find these jobs, farmers move from small towns and villages into bustling cities. Financial institutions also begin to extend credit to these individuals, previously ineligible for loan money, viewing their extra income as insurance against default. With time, the huge income gaps we see today may become relics of the past. This middle class, freed from the burdens of subsistence living, may push for greater civil liberties and start to demand accountability from elected officials.[70] This burgeoning middle class could be the driving force behind the democratic movements of the future.

Discussion Questions

An integrated global supply chain means that, as Nobel Laureate Milton Friedman once put it, "It is possible to produce a product anywhere, using resources from anywhere, by a company located anywhere, to be sold anywhere." What benefits and costs are intrinsic in this system—the "just-in-time" supply chain—for countries, governments and organizations? How do labor and the mobility of people (migration) fit into the logic of this globally integrated economic system? In such a system, what is the importance of traditional notions of state sovereignty? Of cultural borders?

What will a potential shift of the economic center of gravity from the traditional G-6 countries—United States, Japan, Germany, United Kingdom, France and Italy—to the BRIC countries mean? Does it signal hope for a new wave of economic growth and new engines of regional prosperity to drive the global economy, or does it signal the fading importance of Europe and the United States? Will the rise of the BRIC countries signal the rise of middle classes within those countries, or a further expansion of inequity in income distribution? How can governance challenges in each of the BRIC countries derail their economic growth? Resource challenges? Demography and population? The threat of conflict?

According to the World Bank, 2.8 billion people at the turn of the millennium—nearly 45 percent of the world's population—live on less than two dollars a day. To what extent can global economic growth address this chasm—especially in the face of information technology and the ability to quickly organize political and social movements? The rise of radical Islam, environmental and rural protectionist movements, and the "Bolivarian" movement in Venezuela led by Hugo Chavez, are all examples of how perceived inequality on the global playing field can manifest in political movements. What is the long-term impact of such movements to the further integration of the world economy? How can the benefits of globalization be more widely distributed and the costs minimized? What specific role should the United States play in addressing global inequity? What specific role should other current global powers (the EU, Japan) and rising powers (China, India, Brazil) play?

Security

The shift from interstate to intrastate war and the increasing capacity of non-state actors to commit acts of mega violence reflect how patterns of conflict have changed since the end of the Cold War. Today warfare is increasingly described as "asymmetric." Traditional military powers, like the United States, are confronted by increasingly atypical adversaries—non-state ideologues, transnational criminal syndicates and rogue states—that employ unconventional tactics in wars ambiguous in both place and time.

Today, conflict is more likely to occur between warring factions on residential streets than between armies on battlefields. As before, many belligerents today still fight for power and/or wealth, but an increasing number are fighting purely for ideology. Acts of terrorism have become the major vehicle for this malcontent, especially for well-organized and well-funded extremist groups like al-Qaeda. The attacks of September 11, 2001, and similar incidents in recent decades, have shown that even small groups of terrorists can carry out sophisticated attacks that result in an incredible loss of life. The proliferation of nuclear and biological technologies only ups the ante for future incidents.[71]

Terrorism and Transnational Crime

Over the past few decades the size and scope of terrorists' abilities have become truly alarming. Terrorist organizations have evolved from scrappy bands of dissidents into well-organized groups with vast human and capital resources.

This situation is forcing governments around the world to develop strategies to neutralize these groups where they operate, while at the same time protecting their homelands. The United States has met some success in combating terrorist organizations, but this intervention resulted in the formation of "micro-actors," individuals spurred by militant extremism. These individuals, or groups of individuals, operate in poorly organized cells and prefer to use the Internet to spread their message and plan attacks, making it difficult to detect them. Terrorism has also heightened tensions between sovereign nations. For instance, after the Mumbai terrorist attacks of 2008, India and Pakistan neared the brink of war after India accused Pakistan of harboring individuals who coordinated the attack.

To finance their illegal activity, terrorist organizations are becoming increasingly involved in transnational crime, especially drug trafficking. Regarding the war in Afghanistan, Dr. Rachel Ehrenfeld, director of the American Center for Democracy, has stated, "The huge revenues from the heroin trade fill the coffers of the terrorists and thwart any attempt to stabilize the region."[72] Over the last two decades, we have witnessed a surge in transnational crime, in large part because of the dissolution of Cold War alliances that helped keep criminal syndicates in check. Organized crime activity is not limited to the smuggling of illicit drugs, but includes the trafficking of arms, drugs and human beings.

In addition to terrorism and transnational crime, the unequal distribution of globalization's benefits has precipitated political upheavals and social unrest in countries across the world. This is a trend that could be aggravated by resource scarcities if food and water supplies become inadequate to meet the needs of growing populations. As the environmental security scholar Thomas Homer-Dixon asserts, resource stress "causes various forms of social dislocation—including widening gaps between rich and poor . . . weakening of states and deeper ethnic cleavages—that, in turn, make violence more likely."[73] Former U.S. Central Command Commander General Anthony Zinni describes resource-stressed environments as "Petri dishes for extremism and for terrorist networks."[74]

Weapons of Mass Destruction

According to President Obama, "In a strange turn of history, the threat of global nuclear war has gone down, but the risk of a nuclear attack has gone up."[75] International mechanisms established in recent decades have by and large kept the nuclear ambitions of superpowers at bay. However, the fall of the Soviet Union and the increasing prevalence and power of criminal networks have made it more likely that a single group or actor could obtain a weapon of mass destruction (WMD). The term WMD is used to describe any weapons technology (radiological, chemical, biological or nuclear) that is capable of killing a large number of people.[76] By and large it is believed that WMDs pose the greatest threat in the possession of belligerent states like North Korea and Iran. However, experts are warning that a more urgent threat would come from WMDs in the hands of non-state actors. Nuclear material and technical knowledge are exchanged on the black market, especially in post-Soviet countries, where WMD facilities are vulnerable.[77] With the

help of the United States, Russia and its neighbors have made strides in securing these sites and improving oversight of the nuclear industry, but there is no telling how much material has been traded over the years.[78] The WMD threat comes not only from groups operating in the developing world, however, as recent biochemical attacks attest. The perpetrator of the anthrax attacks of 2001 was a U.S. government scientist, and the sarin gas attack on the Tokyo subway was committed by a religious group that enjoyed official government recognition. The ease with which these materials have become available, especially through online resources, is forcing governments to restrict their use. International governing bodies will need to find an acceptable paradigm that allows for the benign application of these technologies, as in power generation, while deterring the nefarious ones.

Force Transformation

In the face of these new asymmetric threats, militaries around the world will be forced to adapt to keep up with the new challenges posed by non-state actors. In 2008, the U.S. Army released a new field manual for stabilization operations in what signified a major shift in military strategy. In effect, the army was acknowledging that the enemy had changed and was unlikely to change back. According to Secretary of the Army Pete Geren, the armed forces must prepare for the full spectrum of military engagements in the coming years, meaning that the military will need to grow accustomed to modern, unconventional warfare, like that seen in Iraq and Afghanistan. Additionally, he argued, military leaders will need to put more emphasis on officer development and education to better prepare soldiers for modern-day threats.[79] Today, a soldier capable of speaking the local language is often more valuable than one able to drive a tank. All the while, the military must maintain its technological edge. The proliferation of cheap but sophisticated military technologies available to enemy combatants is making this more difficult. The military will need to develop new technologies that are not only deadly, but also precise and adaptable to different theaters.

Discussion Questions

Asymmetrical violence (including terrorism) has historically accompanied eras of global economic expansion and rapid technological change. How might the technologies and movements of goods, people and money that power globalization also inspire violence? What steps can be taken to mitigate reactionary movements to the forces of globalization? Is this violence nihilistic or simply "politics by other means"? How are economics likely to drive conflict in the future?

How would the global risk calculus of individuals, organizations and governments shift if a weapon of mass destruction were detonated in a heavily populated city? The likelihood of such an event is high, according to experts around the globe. Would such an event promote closer cooperation between countries in fighting the spread of WMDs, or would it drive countries further apart and back within their sovereign borders?

How does fighting a war against an ambiguous, non-state foe alter existing relations between countries? What are the keys to transforming military and police forces to meet the challenges of guarding against the threats of today and tomorrow? How might judiciary systems and international organizations be reformed to meet these threats? How many civil liberties will citizens give up to increase their feelings of security? What actions carried out by the state on their behalf will they tolerate?

Governance

We have crossed into a new period of governance–from the Westphalian nation-state system to a world with a powerful set of actors outside of traditional governments. The challenges of the previous revolutions will test our leaders as they seek innovative solutions. Strategic coalitions consisting of governments, corporations, NGOs and academic institutions will be necessary in mounting effective responses and capitalizing on important opportunities.

Corporate Citizenship

According to Klaus Schwab, executive chair of the World Economic Forum, corporate citizenship "expresses the conviction that companies not only must be engaged with their stakeholders, but are themselves stakeholders alongside governments and civil society."[80] According to this philosophy, private companies must do more than simply provide goods and services to the public: they must serve the public good. And many private companies are well positioned to do so. The revenue of the largest private company, ExxonMobil, in 2008, was higher than the GDP of the entire country of Austria.[81] With such massive profits, consumers will look to the private sector to help solve many of the world's problems. In fact, according to the 2004 Cone Corporate Citizenship Study, 91 percent of Americans have "a more positive image of a product or a company when it supports a cause, compared to 84 percent in 1993."[82] And it would seem that business leaders are in agreement. According to the *Harvard Business Review*, "When a well-run business applies its vast resources, expertise and management talent to problems that it understands and in which it has a stake, it can have a greater impact on social good than any other institution or philanthropic organization."[83] However, at the end of the day, many CEOs are more concerned with the bottom line than they are with shaping public discourse, and it is unlikely that private companies would be involved in this work if it proved unprofitable. The financial crisis is forcing businesses to reevaluate their practices, and in the end they may find that the most profitable strategy is also the most socially sustainable.[84]

Civil Society/Non-Governmental Organizations

With the decentralization of capital, technology and information, civil society organizations (CSOs) and non-governmental organizations (NGOs) have become important actors, filling gaps in the provision of social services, encouraging participation in local and national politics, and connecting people, resources and ideas across the world. All of the other six revolutions discussed in this toolkit will affect civil society the world over, some in a negative way, some positive. For

instance, communication technology may encourage individuals to disengage from formal politics. Also, immigration may fundamentally alter the cultural and religious makeup of political constituencies and force politicians to alter their platforms. Some governments, confronted by terrorist threats, may implement new security measures that infringe on civil liberties, while other governments may play a smaller role and encourage the professionalization of the "third sector" of nonprofit organizations.[85]

NGOs are already playing an important role around the world—according to the Union of International Associations there are more than 60,000 international NGOs in existence—but the role they will play in the future depends upon the expectations private citizens have for their governments.[86] These expectations differ starkly in developed and developing countries. In failed states like Somalia, where neither the government nor civil society organizations can provide for citizens, people have come to rely on international aid organizations for their most basic needs. Development organizations have been active in these places for years working to empower civil society organizations, but building a truly robust civil society is a decades-long process.

Corruption

Corruption erodes public confidence in governmental institutions and encourages individuals to act outside their purview. According to Huguette Labelle, chair of Transparency International, "The continuing high levels of corruption and poverty plaguing many of the world's societies amount to an ongoing humanitarian disaster."[87] Corruption, including bribery, fraud and extortion, in low-income societies keeps the poor in poverty by dramatically increasing the costs of providing them with public services. It is estimated that unchecked levels of corruption would add $50 billion to the cost of achieving the Millennium Development Goals for water and sanitation alone, equivalent to half of what is paid in foreign assistance worldwide in an entire year.[88] Corruption does not affect just the developing world, however; it causes excessive waste even in more advanced countries. For example, notoriously bad corruption has created stark income inequalities in Russia. There, corrupt officials siphon $120 billion from the federal budget annually; in 2008, that number represented almost a third of government spending for the entire year.[89]

Global Coalitions

Dynamic, innovative, and strategic partnerships between governments, civil society, the private sector and international institutions will be necessary to address the challenges highlighted in the other revolutions.[90] National governments are no longer the uncontested actors, nor do traditional international governing institutions hold the clout they once did. Nation-states have struggled to adapt to sweeping changes and have been slow to reformulate their roles and responsibilities. Likewise, if organizations such as the UN and NATO are unable to change, they may be remembered in the future as nothing more than fixtures of the Cold War era. Recent pledges to expand the resources of the International Monetary Fund (IMF) may hint at an expanded role for that organization, but it may operate with less control

by Western countries.[91] Where these organizations have failed, new groups and partnerships have stepped in. Private companies, civil society organizations and international collaborations have emerged as major players on a host of economic, social, political and cultural issues. The roles of the private sector and civil society have already been discussed, but fledging international partnerships, like the Group of Eight and, perhaps more importantly, the Group of Twenty, should not be overlooked. In 2009, especially, the G-8 and G-20 meetings were followed with great anticipation, as they were seen as the most effective venues to address the international financial crisis.

The problems we face today result from our interdependence, so it is not illogical to assume that we need a collaborative and integrated solution. We will also need leaders with the wherewithal to say that our current mindset is flawed. The pressures of quarterly profit statements, election cycles and annual reports currently prevent leaders from thinking strategically and long-term. The effective leader will jettison vertical integration, information hoarding and dogma in favor of optimization, recalibration and negotiation.[92] In an increasingly integrated world, seeing the big picture requires a daunting breadth and depth of knowledge. Those leaders able to bridge these gaps and create a strategic vision will enable the innovative partnerships necessary to invent a better future.

Discussion Questions

We live in a world in which 13 of the top 50 economies are companies, not countries. How does this change the responsibility companies have for providing for social needs and addressing big-ticket challenges of the future? How can companies ensure their own future prosperity by beginning to engage looming issues of concern—from energy needs to public health to income inequity?

If we have truly crossed the bridge from the Westphalian nation-state model, then what is the next step in the evolution of our societies? Will governments around the world be overwhelmed by this new environment? Will they adapt to meet the constellation of new challenges and opportunities? Will authority become increasingly decentralized? What importance does leadership play in this new system and how can it help guide countries, corporations, organizations and institutions to necessary reform?

Is the proliferation of nongovernmental organizations the result of an incapacity on the part of governments? Or, are NGOs an innovation in human social organization and an important step forward for addressing global and local challenges? How can NGOs and governments work together to complement one another? How should the private sector involve itself in such coalitions?

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CHAPTER 3

Case Studies

California State University, Fresno

Fresno, California
20,000 undergraduates; 2,500 graduate students

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Institutional Uses of Global Engagement

California State University, Fresno (CSU, Fresno) has been involved in the Global Engagement project since the fall of 2006. Students in the Smittcamp Honors College take three specially designed courses to meet upper-division general education requirements. Beginning Fall 2008, 7 Revs—Honors 102: Revolutions in Science replaced one of these courses. In 2010, Global Engagement became the unifying theme across several courses in a First-Year Experience (FYE) program with 100 freshmen. It was very successful and will be the theme again in AY12 with 200 students.

Martin Shapiro has been the Global Engagement representative for CSU, Fresno since Spring 2007. An associate professor of psychology specializing in neuroscience and comparative psychology, he developed the Global Engagement honors course and has taught this course once a year since 2008. Because the course covers a wide area of topics, several instructors receive stipends from the Smittcamp Honors College to give guest lectures on specific topics. Guest lecture topics include immigration and medical issues in Europe, the effects of globalization and conflict on cultures, and climate change.

In 2009, Fresno State received a grant from Wal-Mart to create an educational program to help first-generation students succeed in college, and so was developed the First-Year Experience program. In this program, students take all of the same courses together in a "learning community." Faculty members for these courses were given special training in collaboration of assignments and activities across courses; all courses were taught around the common theme of Global Engagement. This FYE program was designed as an innovative way to facilitate retention and motivation of incoming students at the highest risk of having difficulty and dropping out. These students do not do well on the English and Math entrance exams, and thus need remediation in both areas; in addition, they are often the first in their families to attend college. These students have a 6 percent higher rate of dropping out by their second year, and only 43 percent graduate by their sixth year (compared with an average graduation rate of 55.7 percent). In Fall 2010, students took English, Mathematics, Reading, American History and one major course. In Spring 2011, they took English, Introduction to Biology, Communications, Political Science and Critical Thinking in Anthropology. Faculty members were given a four-day workshop during the summer of 2010. During the first two days, the faculty learned about the Global Engagement Initiative, as well as the importance

of collaborative teaching, learning communities and student success. The final two days acted as an opportunity for faculty to work together to discuss how the material could be incorporated into their courses and how assignments could be collaborative efforts across subjects.

Teaching Global Engagement

For the most part, faculty teaching in this FYE program found Global Engagement to be an excellent unifying theme that they could apply to their classes. At the beginning of the year, each student was assigned a global villager, and many faculty members found that assignments and papers could be addressed from the perspective of the student's global persona. The following are other specific examples on how Global Engagement and global citizenship have been used in FYE.

English teacher, Cecile Harding, and history teacher, John Farrell, had their students read Nathaniel Philbrick's *Revenge of the Whale*; discuss how the book deals with urbanization and industrialization in the United States; and then write an essay on how aspects of the book relate to the population, technology and information revolutions, with each essay given specific prompts. Lisa Bennett and Therese Ewing taught courses about reading comprehension, and they chose the book, *A Long Way Gone: Memoirs of a Boy Soldier*, by Ishmael Beah. This book deals with revolution, conflict, natural resources and population issues. They followed this book with *Blood Diamond*, a film about conflict and the illegal diamond trade in parts of Africa. Ulrike Muller taught Introduction to Biology and dramatically changed the format of a typical introductory biology course from a survey of biological topics to a class that dealt with critical thinking exercises on current issues such as obesity, global climate change, infection diseases and vaccinations. She also had the students keep a "global villager" weekly blog for each topic.

Students in the upper-division Global Engagement honors course come from all majors, are highly motivated and tend to be interested in global topics. One goal of the honors course is to use a variety of resources for the most current information and opinions on global issues. Global Engagement creates opportunities to incorporate innovative technologies and resources, including online videos and radio programs, as well as articles from current periodicals such as *Scientific American*, *National Geographic* and *The Economist*. Keeping up with information is a challenging part of preparing material for students, but it also can be one of the most rewarding aspects of taking on this course. In addition to lectures, students are given the opportunity to lead small-group discussions and give short presentations to contribute to the education of fellow students.

The wide range of material covered in Global Engagement can make preparing to teach this framework intimidating. While it is doubtful that any individual faculty member is qualified to teach in all areas, there is considerable freedom regarding what is covered in each section. Guest lecturers can be helpful, as they bring additional insight on specific issues. Colleagues are often happy to talk about their field of expertise and experiences. One instructor said, "This course has been

extremely rewarding to teach. In addition to forcing me to educate myself on global issues, I find that students show a strong interest in the material and a level of engagement not found in my other courses."

Fort Hays State University

Hays, Kansas
4,300 resident students; 4,500 virtual college students;
and 1,850 international partnership students

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Institutional Uses of Global Engagement

Fort Hays State University (FHSU), a public liberal arts college located in western Kansas, originally became involved in the Global Engagement project through the American Democracy Project (ADP), and was one of the pilot institutions working with CSIS and *The New York Times*. FHSU first offered an undergraduate Global Engagement course to resident students in the fall of 2007. Since that initial offering, the course has run each fall and spring term, been successfully introduced into distance education through FHSU's virtual college, and been approved as a permanent addition to the catalogue by the faculty senate. The course was initially developed on a temporary basis out of the Department of Leadership Studies, and has since become a permanent part of the Interdisciplinary Studies program as a three credit hour, 100-level freshmen-oriented course that is offered both on-campus and online.

Because of the diverse and comprehensive nature of the content that the Global Engagement framework covers, the course is being developed as an addition to the general education curriculum. The course will be included as part of an upper division integrative course menu that students are required to select one course from during their studies.

In addition to the role that Global Engagement is being used for as a common academic experience, the course and materials have also been successfully deployed in other unique ways at FHSU. Two underclassmen cohorts, a freshmen learning community and the Kansas Academy of Math and Science students, use the Global Engagement material as integral parts of their curriculum. Several academic certificates at FHSU also utilize the Global Engagement course as part of their required curriculum.

One unique feature of the Global Engagement program at FHSU is the emphasis placed on local perspectives. Students are required to look critically at trends on the global scale, but also to assess the impact that those trends will have on their

local environment. Students are challenged to examine their own behaviors and consumption patterns in the context of the Global Engagement and to consider how they might influence what is forecasted to occur.

The course at FHSU includes a service-learning component in which students are asked to address some of the issues that they learn that the world is facing in the coming decades. One consistent theme that has been heard from most students that participate in the course is that after being exposed to the Global Engagement materials, they feel a need to take some action in order to address some of these challenges. By providing a service opportunity that is closely tied to the course materials, the students are able to strengthen their curricular knowledge and feel as if their actions are influencing the future in a positive way.

Assessment

The Global Engagement program at FHSU is assessed through a variety of means. The standardized university teaching evaluation is conducted by the institution so that the course and instructors can receive relative assessment to comparable classes at FHSU. In addition, course assessment is supplemented via a separate qualitative instrument administered at the end of each semester. Results have been generally positive. FHSU has also incorporated the Global Engagement Scholars' pre- and post-survey to gauge student learning outcomes around global competence.

Based on the initial feedback and data from the first five years of offering the course at FHSU, student outcomes and satisfaction have been positive. Many students and faculty comment on the value of course material from a wide variety of disciplines. The challenge of relating such diverse material in a single course provides opportunities to teach transformational attitudes and skill sets that students will need in an increasingly complex world. Global Engagement also offers a rare opportunity for students to emerge from disciplinary silos to appreciate the interconnectivity of the many challenges facing individuals and society in the future.

Fort Lewis College

Durango, Colorado
3,853 undergraduate students

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Institutional Uses of Global Engagement

Fort Lewis College (FLC) is Colorado's public liberal arts college. It has a diverse student body, including about 800 Native students each semester, representing over 120 different tribes/nations. The college is characterized by its focus on undergraduates and its longstanding commitment to the education of Native American students.

FLC has been involved in the Global Engagement initiative since it began in 2006. A new component of general education—Education for Global Citizenship (EGC)— had just been introduced, and the project seemed a natural fit. The opportunity for participation in a national community of faculty teaching related courses offered potential for enhancing both the general education program and the institutional mission regarding civic engagement and service. A course using this framework, EGC 310, was created with the idea that faculty from various departments teach it.

At FLC, the principals involved in the project were Stephen Roderick, former provost and academic vice president, and Paul McGurr, assistant dean of the school of business administration. McGurr teaches a Global Issues course as part of an FLC study abroad program and served on the task force that designed FLC's Education for Global Citizenship program. Beginning summer of 2009, he has regularly been teaching EGC 310. General education at Fort Lewis College includes an upper-division component, EGC, designed to give advanced students from different majors an integrative and interdisciplinary experience. Students choose EGC courses from approximately 25 possibilities. The goal of these courses is to develop an understanding of the "global dimensions of social, ecological, political, economic or cultural systems." Course topics are varied, ranging from global literacy to infectious diseases to world music and culture. Class size is typically limited to 25 in order to promote student research and active engagement with the issues under study.

All academic departments are expected to participate in general education. The variety of courses reflects both departmental and individual interest and initiative

in responding to this requirement. EGC 310 takes a broader view than many of the other EGC courses, but shares the same learning outcomes.

Plans for assessing EGC 310 were part of the course proposal and conform to the assessment model used for other EGC courses. Based on Barbara E. Walvoord's *Assessment Clear and Simple*, assessment activities are embedded in the flow of each class, with results from all courses pooled and considered collectively. For EGC 310, group discussion, extensive writing, research projects and presentations will be used to evaluate students' development as competent global citizens. It is likely that pre- and post-test surveys will be used as a standardized way to learn about student attitudes. Learning outcomes for the EGC 310 course include:

- Awareness of how global economic, social, environmental and cultural systems interact;
- Development of a sense of responsibility for the future of current global problems;
- Ability to engage in critical analysis of global issues; and
- Ability to synthesize and propose solutions in ways that recognize diverse perspectives.

Reflections on Launching Global Engagement

When one of the faculty members initially involved moved to a different institution and another became an administrator, the need for an ongoing way of recruiting and supporting faculty to teach the course became clear. To address this need, a three-day workshop was implemented and tested in May 2009. Sponsored by the provost's office, it was designed to provide resources, promote faculty collaboration and connect FLC faculty to those teaching at other institutions. In addition to supporting faculty interested in teaching EGC 310, the workshop intended to provide a broad introduction to the project so that interested faculty could consider alternative ways of utilizing the framework.

Faculty from FLC, Northern Arizona University and Fort Hays State University participated. Dennis Falk, of the University of Minnesota Duluth, and Martin Shapiro, California State University, Fresno, were workshop leaders. A draft version of the *Toolkit: Educating Globally Competent Citizens* was used and evaluated by workshop participants.

The biggest challenge of successfully implementing the project has been sustaining faculty participation. Because jobs and priorities change, it is not feasible to rely on the ongoing involvement of a few faculty members. There needs to be a way to expand, and then support, faculty participation. The collaboration with CSIS had provided resources and a rich framework, and *The New York Times'* contributions regarding resources and e-learning are valuable. However, a self-sustaining community of faculty, at both the institutional and national level, is critical.

The organization of academia provides a model for such a community. Faculty members are, first, members of an academic discipline, which can also be thought of as an intellectual community of peers. Disciplines are self-sustaining communities of inquiry, conversation, friendship and identity. They are also powerful shapers, sustainers and reformers of curriculum. In order to expand and sustain a trans-disciplinary curricular initiative like EGC 310, participants need similar opportunities for conversation, mutual support and sense of membership in a group with shared goals. At FLC, an annual workshop where peers will learn from peers is part of the vision.

Since the 2009 workshop, other faculty who have taught the course include Sandra Linn and Robert Bunting. And still others have expressed interest in teaching the course. Yohannes Woldemariam, for instance, is scheduled to teach the course in Fall 2012, and 28 students are already enrolled (which may force an increase to the cap size of 30). Our new provost, Dr. Barbara Morris, remains committed to the project and supporting faculty who want to participate.

At both the institutional and national levels, ongoing efforts to understand and address logistical and motivational challenges of this valuable curricular initiative are also needed.

Georgia College

Milledgeville, Georgia
5,100 undergraduates; 900 graduate students

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Institutional Uses of Global Engagement

Georgia College joined the Seven Revolutions consortium in July 2010. Steve Elliott-Gower, Georgia College's designated Seven Revolutions Scholar, was originally associated with the Seven Revolutions consortium as a University of Georgia System Faculty Fellow, 2008-09. He has used Seven Revolutions in introductory international relations courses and multidisciplinary global issues courses since Spring 2008.

In 2010, Georgia College revised its core curriculum and, as a result, created an opportunity to integrate stand-alone Seven Revolutions classes in the new core.

Seven Revolutions, I (Fall 2011) is a freshman seminar designed to provide an overview of all of the seven revolutions (now global challenges) and the relationships between and among them. The emphasis in this seminar is on critical thinking, employing effective search strategies to identify primary and secondary sources, and evaluating those sources for relevance and information integrity. This seminar included a role-playing simulation entitled, "Land Acquisition in East Africa," designed to develop students' critical decision-making skills.

Seven Revolutions, II (Fall 2012) is a sophomore seminar designed to develop students' research skills by working in small teams on one aspect of one of the seven revolutions/global challenges, and then working together, as a class, to produce an e-book to be presented in an undergraduate research forum. The emphasis in this seminar is on research and presentation skills.

Both seminars emphasize global and multidisciplinary perspectives utilizing, for example, the global village exercise (described in the "Teaching Materials" section) and a disciplinary variety of journal articles (e.g., *Foreign Affairs*, *Foreign Policy*, *The Economist* and *National Geographic*).

Outside of the classroom, Global Engagement provides the conceptual and organizational framework for activities associated with the Honors Residential Learning Community. The RLC focuses on global issues and global citizenship.

Teaching Global Engagement

Teaching Global Engagement has been a delight. Most students are excited about and engaged in this class, especially when they can relate these global issues to local or regional issues (e.g., state immigration policy) and/or world events as they unfold on the front page of *The New York Times*. The 2011 Arab Spring provided the opportunity to talk about population demographics, food shortages, energy prices, information technology, social media and governance within the Global Engagement framework.

Kennesaw State University

Kennesaw, Georgia
21,600 undergraduates; 1,900 graduate students

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Institutional Uses of Global Engagement

Kennesaw State University (KSU) began discussing ways to infuse Seven Revolutions into its undergraduate curriculum in 2007 after several academic administrators were introduced to the project at AASCU conferences. KSU was already heavily engaged in the American Democracy Project, and the university has had a long commitment to global education. Thus, Global Engagement was a strong fit for the university's current and future goals.

Also in 2007, the university launched its five-year Quality Enhancement Plan (part of its requirements for SACS reaccreditation), which prioritized global learning across the curriculum. The Department of First-Year Programs was formed that same year to provide greater emphasis to first-year seminars, learning communities and other curricular initiatives specifically targeting incoming students; the department wanted to ensure that it supported the university's QEP goals of developing "engaged global citizens." The department worked through the 2007-08 academic year to develop a special topics version of its award-winning first-year seminar course with a global focus that utilized the Global Engagement framework as its foundation. The special topics version was so successful when it was launched in 2008 (and offered subsequently in spring and fall of 2009) that it was approved to be a permanent course in the undergraduate curriculum beginning in Spring 2010.

KSU 1111: Tomorrow's World Today meets all four of the learning outcomes established for every first-year seminar, but it does so by integrating them into the Global Engagement framework. Those four learning outcomes are as follows: (1) enhancing life skills, (2) strengthening strategies for academic success, (3) connecting to campus and community and (4) developing foundations for global learning. Thus, students explore time management as one of the many resources requiring management in Revolution #2, and students discuss academic integrity as a part of Revolution #4's emphasis on access to information.

KSU 1111 is taught both as an independent first-year seminar and as part of learning communities. The readings, multimedia materials, assignments and assessment tools are updated each semester. Faculty from a variety of disciplines—including

political science, international business, public administration and communication—teach KSU 1111. Students are introduced to a variety of texts including newspapers, scholarly journal articles, trade publications and organizational white papers. They engage in globally focused community service projects, and they explore the global aspects of the annual first-year common reader. For example, students taking KSU 1111 in Fall 2011 will be reading *Outcasts United* by Warren St. John along with every student taking a first-year seminar (KSU 1101, KSU 1111, KSU 1121 and KSU 1200). However, the 1111 students will have a unique opportunity to discuss the book's global aspects from a Global Engagement perspective and participate in a modified version of the University of Minnesota Duluth's successful "Global Village" project that concentrates on countries discussed in the book.

Assessment data illustrate that students are fulfilling the learning outcomes developed for KSU 1111, while student evaluations and reflective journal assignments show students' appreciation for the course content. Finally, preliminary retention data from 2008 and 2009 support the course, showing that a greater percentage of students taking KSU 1111 are retained the second year than those who do not take a first-year seminar.

In addition to the first-year seminar, KSU has offered an honors colloquium on the Seven Revolutions, and its Center for Student Leadership integrates Global Engagement into all of the LINK (Leaders IN Kennesaw) programs. This ensures that hundreds of sophomores, juniors and seniors are also exploring current and future trends that will shape their personal and professionals lives.

Teaching Global Engagement

Students are very responsive to the Global Engagement framework, even though most of the first-year students are being introduced to these issues for the first time. They are challenged by many of the readings from *Foreign Policy*, *The Economist*, *Foreign Affairs*, academic journals and even international newspapers, but a majority of the students appreciate the challenge. Student evaluation data make it clear students see the practical implications of the content, and they enjoy thinking about how their futures will be shaped by the seven drivers, especially population, resource management, technology and economics.

KSU faculty members who teach the course face their own challenges, but they seem to enjoy them as well. The course content must be substantially updated each year to remain current, and no one has the inherent expertise to teach all seven of the revolutions with ease. Faculty are also covering extensive material in a short period of time, without overwhelming first-year students who may not have the inherent understandings of political systems, geography, economics and cultural contexts to jump right in to the discussion of future trends.

Northern Arizona University

Flagstaff, Arizona

20,750 undergraduates; 4,600 graduate students

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Institutional Uses of Global Engagement

Northern Arizona University has participated in the Global Engagement program from its inception in 2006, and has been similarly involved in the American Democracy Project. A University Task Force on Global Education was established in Spring 2008 to consider further ways by which global awareness could be infused into the curriculum to transform NAU into a global campus and to prepare students to be globally competent graduates. A Global Learning Initiative was launched by President John Haeger in Spring 2010, focused on developing student skills across all university departments in three main areas: environmental sustainability, global engagement and diversity education. This initiative has been under the direction of Blase Scarnati since its inception.

In addition to the Global Learning Initiative, the Global Engagement program has been infused into the curriculum via other initiatives. One of these is the Community Re-engagement for Arizona Families, Transitions, and Sustainability (CRAFTS), which combines courses in the First Year Seminar program along with freshman research teams working in association with community partner organizations. In Fall 2011, 23 CRAFTS sections of the First Year Seminar were offered, including such courses as Renewable Energy Applications; Southwest Sustainable Foods; The Great Immigration Debate; Student Democratic Initiatives; and Democracy, Social Justice and the Environment. All such seminars are capped at 25 students. Many First Year Seminar students were also involved in Action Research Teams (ARTs), working to diffuse these ideas into local elementary schools. The diffusion model will be further enhanced by programs within the new University College to be established in Fall 2012.

Global Engagement materials have also been used for specific courses focusing on all, or most, of the challenges. These courses can be both interdisciplinary and department-based. The first such interdisciplinary course was offered at the sophomore level by Marcus Ford (humanities) and David Cole (physics and astronomy) in Fall 2008, with almost a dozen faculty guest speakers adding to the curriculum. Stephen Wright will be teaching a Global Engagement senior capstone course in Summer 2012 (online), housed within the Department of Politics

and International Affairs, and another freshman-level course in Fall 2012 for the interdisciplinary First Year Seminar Program.

Teaching Global Engagement

Student comments regarding working with the Global Engagement curriculum have been very positive. Students are especially motivated when the materials are used in an interdisciplinary fashion, and when this work involves hands-on application and community activism. Given that these materials are now diffused across so many disciplines and courses, it is rather difficult to isolate exactly the reasons behind student support and achievement, but faculty very much enjoy the involvement of their students in debating and analyzing these important issues.

Southeast Missouri State University

Cape Girardeau, Missouri
10,000 undergraduates; 1,000 graduate students

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Institutional Uses of Global Engagement

Sharing knowledge with others strengthens an individual's comprehension and experience. As Dr. Thomas Fuller wrote nearly three centuries ago, "Education begins a gentleman, conversation completes him." It is the unique method of conversation about the Global Engagement materials that sets the Southeast Missouri State University (Southeast) course apart. The institution has a proud tradition of embracing experiential learning. The creation and implementation of Southeast's UI498 CSIS Junior/Senior Seminar course has resulted in not only a semester-long experience of a lifetime for 30-35 juniors and seniors (per year), but also in an event that brings Washington, D.C., and the world, to Southeast's campus.

Southeast's involvement began in 2006 when Erik Peterson, CSIS senior vice president and director of the Global Strategy Institute, gave a Global Engagement presentation to the campus. Peterson invited President Kenneth W. Dobbins to send students to the CSIS Global Strategy Institute (GSI) for a week-in-residence, interacting with CSIS senior scholars. President Dobbins, Provost Jane Stephens and Vice Provost Fred Janzow, along with Southeast's academic deans, marshaled the institutional resources to send the first student cohort in 2007, accompanied by three faculty members. Since then, this initiative has been enthusiastically championed by President Dobbins and the current provost, Dr. Ron Rosati.

Dr. Willie Redmond has participated in the Global Engagement project for the past three years. He served on the faculty course team in 2009, as the lead faculty on the course team in 2010 and 2011, and is now participating in the AASCU's initiative to bring Global Engagement to AASCU campuses nationwide.

Southeast's course includes preparatory study of the Global Engagement, participation in a week-in-residence at the GSI over spring break, and student presentations made to the campus and larger community at the CSIS/Southeast Regional Conference, held approximately four weeks following the students' visit to GSI.

"Southeast is fortunate that we have been able to develop a relationship with CSIS that puts our best students in contact with these experts for an entire week over spring break, and gives them a much better understanding of the issues they will face over the next 25 years—issues such as the rise of international competitors,

the environment, international financial crises, global energy usage, population pressures and others," said President Dobbins.

Juniors and seniors representing every college and campus are nominated each fall by their deans or the president's office to enroll in the CSIS Junior/Senior Seminar for the spring semester. These students must have a demonstrated record of achievement both inside and outside of the classroom via their GPAs, their course work and their campus involvement. This selection process creates a body of students for the course whose gender, age, ethnicity and areas of study are diverse.

Students pay tuition and incidental fees for a three-credit hour course on campus in addition to a $250 special course fee. All of the other course expenses, including travel to and from Washington, D.C. and lodging, are covered by funds provided by the deans, the provost and the president. Faculty members are also nominated by their deans and represent a cross-section of campus disciplines. Three (in addition to Dr. Redmond) are selected early in the fall semester while the student nomination and selection process is underway. Faculty members begin meeting to generate a course syllabus built around the three key components of the seminar: preparatory study of the Global Engagement materials; active participation for the week-in-residence at CSIS; and successful student presentations at the regional conference.

Students complete readings and meet to discuss the larger ideas behind the Global Engagement at the beginning of the course, then participate in the virtual classroom by engaging with the dedicated online resources about the Global Engagement made available as a pilot participant in the Global Engagement initiative. Students review and discuss news articles, multi-media presentations, and video interviews from *The New York Times* and CSIS.

The second section of the course is a five-day seminar held at CSIS in Washington, D.C. over spring break. Students hear presentations from CSIS experts on the 7 Revs and participate in two real life simulation exercises. In 2010, one exercise had student teams assume the role of decision-makers as they were faced with crises in the areas of cyber security and cyber terrorism. The second had students play leaders of countries and regional blocs as they responded to the outcome of the 2009 Copenhagen Accord. In 2011, the focus of the simulation exercise was on global energy. Needless to say, this part of the program is an absolute hit with the students, as they are very excited to present their ideas to panelists who are experts in these areas.

The final course experience (in April) is a CSIS regional conference held at Southeast for the campus and surrounding Southeast Missouri community. Students make team presentations based on research that they started back in December, and also incorporate information that they gathered from their week-in-residence at CSIS. The six primary topics of study for the 2010-2011 course were demography, resource scarcity, climate change, conflict/nuclear non-proliferation, Brazil as an emerging nation and Russia—then and now.

President Dobbins said that the regional conference gives students an opportunity to share with faculty, staff, other students and the broader community some of what they learned at their week-in-residence in Washington, D.C. Two CSIS scholars also spoke during the campus event. In 2010, Karen Meacham, CSIS dean of the Abshire-Inamori Leadership Academy and director of educational outreach, gave the Seven Revolutions presentation and Thomas M. Sanderson, CSIS deputy director and senior fellow, Transnational Threats Project, spoke on international security and terrorism. In 2009, Linda Jamison, CSIS senior fellow and then dean of the Abshire-Inamori Leadership Academy, spoke on creative leadership in the 21st century, and Erik Peterson gave his Seven Revolutions presentation as the keynote address. In 2008, Peterson premiered his newest work, "The Class of 2025," and Frank Verrastro, CSIS senior fellow and director of the CSIS Energy and National Security Program, gave the luncheon keynote on "Managing the Transformation to a Sustainable Energy Future."

Participating in Global Engagement

Informal evaluative measures suggest the success of Southeast's approach. One of the students from the 2008 cohort completed an internship at CSIS in the Global Strategy Institute; another from the 2009 cohort interned in CSIS's External Relations division. Nearly all of the students from the 2007, 2008, 2009, 2010 cohorts said that the exposure to the Global Engagement materials, the visit to CSIS and Washington D.C., and the participation in the CSIS/Southeast regional conference were experiences that they would never forget. Many commented that it was life changing. The next phase of Southeast's participation in this initiative will involve increased exposure of the Global Engagement material to freshman seminar classes.

According to Southeast's Dr. Karie Hollerbach, "Engaging with the students and the 7 Revs materials has been an extraordinary teaching assignment. The subject matter is fascinating and allows a professor to move out of a disciplinary box to a multi-disciplinary realm." The breadth and depth of the materials also make a variety of teaching approaches possible as can be seen throughout the case studies in this section.

University of Minnesota Duluth

Duluth, Minnesota
10,000 undergraduates; 800 graduate students

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Institutional Uses of Global Engagement

The University of Minnesota Duluth (UMD), a comprehensive regional university, has participated in the Global Engagement project since its inception in September 2006 and was involved in the American Democracy Project prior to that time. UMD administration has supported the project with travel funds, reassigned faculty time, and facilitation of activities. The campus recently approved new liberal education requirements, which include an expanded Global Perspective component that could be enhanced by Global Engagement curriculum in a number of upper division courses.

Denny Falk, distinguished university teaching professor and faculty fellow for strategic planning in the chancellor's office, has taught introductory liberal education courses on global issues for over 20 years, in addition to graduate social work courses on research and human behavior. During a 2006-2007 sabbatical focused on global citizenship, he was a visiting fellow at CSIS and has since served as chair of the Global Engagement national consortium.

The Global Engagement materials are used extensively at UMD within introductory liberal education courses on global issues taken primarily by freshman and sophomore students. SW 1210 Global Issues is taught to 40-50 students each semester, and SW 1212 Global Issues Honors Seminar is offered each spring with 10-15 honors students enrolled. SW 1210 was also offered as a completely online version during the last three fall semesters, and was offered as a blended course during Fall 2010. Most students take these courses to meet the current international perspective requirement in their liberal education program. The broad goal of these courses is for students to become more globally competent citizens. Course objectives are that students: (1) adopt global perspectives in examining the critical issues currently facing our world; (2) better their understanding of the nature and causes of worldwide problems; (3) recognize alternative solutions and opportunities associated with these problems; (4) identify actions that can be taken locally to address global issues; and (5) become intellectually curious and open to new ideas and perspectives.

The Global Issues courses use the Global Engagement content within the Epsilen environment as a primary resource for the course. The course introduction exposes

students to the global perspectives of problem solving, futures and systems thinking, and provides an overview of the Global Engagement content. The next seven lessons correspond to seven Global Challenges, starting with population and ending with governance. Selected resources from *The New York Times* and CSIS are used within Epsilen in class, and other *New York Times* and CSIS resources are assigned to be independently explored by students outside of class, much as a textbook would be used. Additional lessons on "thinking globally, acting locally" and integrating Global Engagement complete the course.

Throughout the course, students take on the role of a member of the "global village," representing countries and regions around the world in proportion to the number of people who reside in those locations. For example, in a class of 50 students, about 10 students represent different areas in China, eight represent India and two represent the United States. Students are then encouraged to examine how each of the seven revolutions affects and are affected by the person and country they represent.

Many features of Epsilen are used in the global issues courses. Students use the blog feature to describe the person they represent in the global village and the effects that each revolution has on that person. The forum feature is used for students to apply global perspectives, such as problem solving and futures, to understand Global Engagement and the global trends and issues within the revolutions. In the online course, Epsilen was used as the delivery platform for all course content and activities. Syllabi, resources, teaching and learning materials, and information about accessing a sample global issues course in Epsilen appear in subsequent sections of this toolkit.

Other faculty members and departments also make excellent use of Global Engagement resources. William Payne, professor of theatre, integrated the Global Engagement material into general education courses and into the theatre major. TH 1001 Introduction to Theatre Arts integrates an overview of theatre history and a variety of dramatic texts from Ancient Greece to the present, using the seven revolutions to bring each play and period into the present and the near future. Payne plans to propose this course for the new liberal education program for both Fine Arts and Global Perspective credits.

As previously mentioned, Payne has integrated Global Engagement into the theatre major. All incoming freshman majors take TH 1801 Elements of Theatre, an introductory course for majors with an additional focus on the techniques of play analysis. Using the same principles as the TH 1001 course, the seven revolutions are introduced to freshman theatre majors during their first semester. As juniors or seniors, all theatre majors take TH 3201 Stage Direction. In this course, the Global Engagement issues are fused with contemporary plays; with essays regarding theatre by Anne Bogart (from her book, *On Directing: Seven Essays on the Art of Theatre*); and with daily reading of *The New York Times*. The students write essays bringing together the Bogart work, a *New York Times* article, and one of the seven

revolutions with an emphasis on how global trends will affect their art form in the future. Introducing the Global Engagement Initiative to theatre students as freshman allows for the integration in TH 3201 to be done with more depth and complexity. TH 3201 Stage Direction will be submitted as an upper division course within a major that meets the liberal education requirement for Global Perspective.

Global Engagement has been used elsewhere, as well. For instance, a UMD business professor used Global Engagement content in an upper-division course on Strategic Leadership. In the first two weeks of the course, 50 students quickly reviewed the trends and issues identified in Global Engagement content, then referred back to this material as important contexts in which leadership is exercised. Instructors in psychology have also used Global Engagement content in courses on "Marriage and Families Worldwide" and "Gender and Society."

Teaching Global Engagement

To this point, assessment has been mostly informal, with some pre-post data indicating changes in student knowledge and attitudes. In general, students like the video and interactive features and the shorter articles available via Epsilen and *The Times*. Students have been somewhat reluctant to use Epsilen's profile features. Pre-post data collected in the Global Issues courses indicate that students report: (1) knowing more about present and future issues facing the world; (2) being more committed to civic involvement and more knowledgeable about how to get involved in civic life; and (3) being more curious about what happens in other parts of the world.

Based on the experience at UMD, the Global Engagement framework and resources provide an excellent foundation for a broad course on global issues such as the ones offered at UMD. The resources can also provide important context for courses as diverse as business and theatre. A challenge of teaching courses on the range of issues covered in the Global Engagement Initiative is that no single faculty member is knowledgeable about all of the topics covered. The advantage of the Global Engagement approach is that faculty from across the country can share resources and insights about how to teach the topics and issues that they know best. The Global Engagement topics present the greatest forces that the world will face in the next 15 to 20 years, and it is important that faculty not allow disciplinary boundaries to limit study of these key issues.

Western Kentucky University

Bowling Green, Kentucky
18,000 undergraduates; 3,000 graduates

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Institutional Uses of Global Engagement

Since the spring of 2008, WKU faculty have incorporated content from the Global Engagement project into lower division courses in Political Science, Geography, History and First Year Seminars. This content also is covered in upper division Honors Colloquia and Senior Capstone courses for the Bachelor of Interdisciplinary Studies (BIS) major. Starting in Fall 2013, all students in the Honors College will take an upper division seminar on these trends as a part of their required general education core. All of these courses have explored these trends through a combination of common readings, web-based materials, lectures, class discussions, analytical activities, student presentations and out-of-classroom experiences.

The students who take these courses tend to be interested in interdisciplinary thinking and they often are active participants in a variety of campus organizations related to the environment, governance and sustainability. This is particularly true of the honors students. These students represent a diverse array of majors and this adds an interesting dimension to class discussions. The students taking the course in the BIS program tend to be slightly older than the traditional undergraduate and they bring a wealth of personal experience to their exploration of these trends. Overall, students who are interested in pondering the future tend to be students who are interested in solving "real world" problems in the present.

Educational Uses

The materials developed by the Global Engagement Scholars and their partners are organized, well researched and easy to use. The high quality and accessibility of these materials make them useful for faculty teaching in many disciplines. Some instructors are infusing these materials into existing courses on technology, resource management, demography and international relations. Others are using this interdisciplinary model as a way of showing students how their discipline fits into a broader context. No faculty at WKU are currently using the Epsilen platform for this course, but the wealth of web-based resources available to instructors makes this course a particularly good candidate for online teaching.

Assessment

Students in the BIS and Honors College courses at WKU have been administered a pre- and post-survey (a copy of this survey is included in this toolkit) that is designed to measure what students consider to be the most pressing issues today and in the future, as well as their sense of efficacy in being able to shape their

future. Their relative optimism about the future also is assessed. So far, these data reveal that at the end of the course, students generally change their views on what issues will be most important in the future (resources replace conflict) and they also feel an increased capacity to make a difference in the world. Another interesting outcome of these assessments is that students tend to be highly variable on the optimism-pessimism scale at the beginning of the course, but most see themselves as neutral by the end (the mean value on a Likert scale decreases slightly).

Reflections

The relevance of this material to students from any major makes this a particularly rewarding class for people interested in interdisciplinary, problem-based teaching and learning. The unique characteristic of this project is its deep-future orientation, but even for historical or contemporary issues courses, the seven trends explored in the model provide a useful organizational structure for thinking systematically about the complex web of forces that shape our world at any time. The trends are not discipline-based, but each of them does connect in some broad way with the work conducted by faculty in each of the separate departments that make up most of our universities. In this way, the seven trends collectively offer a hint of the "whole" curriculum that sometimes is obscured by the administrative structures that tend to silo and divide our institutions. One of the most common comments from students in this course is that they feel like they now know more about what is going on in world news and they feel better prepared to influence public policies that may shape their own future. What more encouraging words can someone interested in preparing students for the future want to hear?

CHAPTER 4

Teaching Materials

**Sample Syllabi, Handouts,
Assignments, Exams
and Assessment Survey**

California State University, Fresno

Fresno, California

Honors 102 • 7-Global Revolutions: Creating Globally Competent Citizens • Spring 2012
Instructor: **Dr. Martin Shapiro**

Class Summary

The world is undergoing rapid changes unprecedented in human history. Human population is not only growing rapidly but shifting in age demographics. Issues of water resources, climate change, and loss of biodiversity promise to impact life of this plant in drastic and possibly devastating ways. Our technology is growing so rapidly that we have computers storing and processing information at incredible speeds; we are communicating with people all over the world in seconds; and deciphering and manipulating the very codes of life through genetic engineering. The distribution of wealth and proliferation of poverty is also going through major shifts within the United States and across the world. Finally, emergence of new governments and the proliferation of violence, conflict and peace promise to place great challenges to our "global community" in the coming years. This class attempt to address these major revolutions (population, resources, information and communication, technology, economics, governance and conflict) with an emphasis on how they will change our world in the coming 25 years. This class will combine lectures on broad overviews as well as very specific examples and case studies. We will read a number of current articles from the New York Times, the Center for Strategic and International Studies, and many other resources. We will also incorporate other media sources such as short video (both in class and on-line), radio programs, and website. Students will get into groups to discuss readings and share ideas. While many classes discuss very specific topics, this class will attempt to integrate many broad topics to help the student become more globally competent citizens and leaders. (This description comes, in part, from Dennis Falk, University of Minnesota)

Student Learning Outcomes

In examining the global issues currently facing humanity, this course will attempt to achieve the following goals:

- Students will adopt global perspectives in examining the critical issues currently facing our world, including problem solving, systems, and futures perspectives.
- Students will better understand the nature of the worldwide problems we are currently facing and will analyze the underlying causes of these problems.
- Students will recognize alternative solutions and opportunities associated with these problems.
- Students will identify actions that can be taken locally that will address the global issues considered in this course.

- Students will gain skills that will enable them to obtain and evaluate information about global issues and to take action to address these issues.
- Students will be predisposed to be open to new ideas and perspectives and to be intellectually curious about the world.

Three exams (100 pts each)	300
5 Short Discussion Papers (10 pts each)	50
Group Leader question	20
Group Leader summary	30
Book Leader question	20
Book Leader summary	30
5 short discussion papers books (10 each)	50
Predicting the future (e-port)	30
Final e-Portfolio (e-port)	20
Save the world (e-port)	60
Paper abstract	20
Paper (e-port)	100
Final Presentation	50
Total	780

Grades: A = 90%+; B = 80%+; C = 70%; D = 60% +; F < 59%

In order to receive a passing grade, every student must complete the presentation and term paper with a passing grade. If you are taking this course credit / no credit, you need a total of 546 points to receive credit.

Exams

Ten days before each exam a review sheet will be provided that will have terms and essays that will be covered on the exam. Material will come from lectures and material presented in folders. The exams will consist of three parts: multiple choice, define the term and essays. The material will only cover material from the review sheet. You will need to bring a scantron to each exam. The final exam will only cover material in presentations by other students.

Study Expectations

It is usually expected that students will spend approximately 2 hours of study time outside of class for every one hour in class. Since this is a 4-unit class, you should expect to study an average of between 6 and 8 hours outside of class each week. Some students may need more outside study time and some less.

Term Paper

We will be discussing a number of big global issues throughout this course and have little time to go into great depth on any one topic. This paper is intended for you to explore, in great depth, one problem facing our world. The paper should integrate several of the seven revolutions topics. It should focus on what is happening today

and how things are forecast to change in the coming years. A good paper will incorporate several references from magazines, journals, books and websites. It will state the general issue and support ideas with specific and detailed examples. I do not want a paper that deals only in generalities. The abstract for the paper should outline the general topic and the specific ways that you will research information relative to the topic. The paper should be 12 – 15 pages, double spaced, 12 font, and 1 inch margins. Reference must be cited within the text as well as a bibliography. Citation must be in APA style. The following website provides examples of APA citation style: http://www.liu.edu/cwis/cwp/library/workshop/citapa.htm Tables, graphs, and figures are perfectly acceptable within this paper as long as they are accompanied with figure captions and reference.

The paper will be submitted through your e-Portfolio. This will allow for creative use of images, videos and links. Details of this process will be discussed in class.

Presentation

Each student will be giving a 10-15 minute PowerPoint Presentation on the topic of your paper. This is an opportunity for you to educate your fellow students and instructor about what you have learned. In addition to the presentation, each student will provide the instructor a document, video link, radio program, etc. that relates to your topic (think of similar material found in folders). This material item should take 10-20 minutes to read, watch or listen to. These will be provided to the other students and be part of the final exam. You will also provide 3 key words and one essay questions related to your presentation. The presentation can take one of three formats:

1. Describe an organization that was established to address the problem discussed in your paper. You will address the primary mission of this organization, how they raise money, what percentage of the money raised is used for the purpose of the organization, how they raise awareness, what they have done or what they plan on doing. This could be an organization that you support and think are doing good work, or could be an organization these misappropriating funds, hurting the cause or are even fraudulent.

2. Describe the work of a single person that is dedicated to the topic describe in your paper. How has their experiences brought them to this topic and what specifically are they doing to help solve these problems.

3. Describe a specific new technology in terms of how it is impacting the future.

Save the World: Taking Action

For this assignment you will be asked to take action on an issue of importance to you. This gives you the opportunity to save the world in your own way. This assignment was designed to allow for a great deal of creativity or ingenuity on your part and will be graded on effort. You will record in writing, photos and links within your e-Portfolio.

E-Portfolio and E-Portfolio Reflection Paper
You will be creating an e-portfolio (this is similar to a personal web page) and will be documenting your "taking action" assignment and your term paper on your e-portfolio. There will be instructions on using e-portfolios in class.

Things to consider with e-portfolios:

• If your e-portfolio access setting is private, then only you can see the content on the e-portfolio. If, however, you make it public or Fresno State access, then other can see the content, so please be careful and respectful of what you present on your e-portfolios.

• Assignments submitted through your e-Portfolio could be used for assessment purposes at the department, college or university level. If you do not want your assignments used for assessment, please contact your instructor to make arrangements for your assignments to be submitted in a different manner.

Discussions and Summaries

For six of the seven revolutions, the first Ð hour of one class will be dedicated to group discussion of specific material (readings, videos, radio programs). Each student will act as a group discussion leader for one week. The discussion leader will post specific questions related to the readings and videos on blackboard. Each student will read the questions and submit a 1-2 page paper with responses to the questions based on the material. On the discussion day, leaders will organize a group of other students to review the readings and talk about the questions. By the next night, the discussion leaders will post a 1-2 page summary of group's discussions.

Book

To help me prepare for the rather broad topics discussed in this class, you instructor has read a number popular books on these topics. You will choose one of these books to read and discuss in book groups:

• *Physics of the Future* by Michio Kaku
• *The Price of Civilization* by Jeffrey Sachs
• *Common Wealth: Economics for a Crowded Planet* by Jeffrey Sachs
• *The World in 2050: Four Forces Shaping Civilization's Northern Future* by Laurence Smith
• *Hot, Flat, and Crowded: Why We Need a Green Revolution—and How It Can Renew America* by Thomas L. Friedman
• *The Singularity Is Near: When Humans Transcend Biology* by Ray Kurzweil
• *The Post-American World* by Fareed Zakaria
• *Creating a World Without Poverty: Social Business and the Future of Capitalism* by Muhammad Yunus

- *Storms of My Grandchildren: The Truth About the Coming Climate Catastrophe and Our Last Chance to Save Humanity* by James Hansen
- *The Coming Population Crash: and our Planet's surprising Future* by Fred Pearce.

On Monday, January 23rd you will submit your top three choices of books you want to read. I will create three groups of six students, and I will create a schedule of chapters for each book. Groups will meet six times throughout the semester for short discussion sessions on each section. These discussion groups will be similar to the material group discussions with a weekly group leader, submitted responses and summaries.

Blackboard

Lectures will be available on Blackboard in PowerPoint and Adobe Acrobat. I suggest you print out a copy of the presentation (in either form) and bring it to class to help in note-taking. It will be difficult to do well in this class by just downing loading my presentations and not attending class.

Daily Schedule

	Day	Date	Subject
1	W	18-Jan	Introduction to the course (Epsilen, NYT, CSIS, AASCU). Future Thinking
2	M	23-Jan	Population: Lecture
3	W	25-Jan	Population: Movie: *World in Balance*
4	M	30-Jan	Population: Discussion group 1
5	W	1-Feb	Biodiversity and Populations (save-the-world proposal due)
6	M	6-Feb	Water Resources: Discussion group 2
7	W	8-Feb	Resources: *Water: Documentary: Flow*
8	M	13-Feb	Resources: Food Book Discussion
9	W	15-Feb	Food and Technology (paper abstract due)
10	M	20-Feb	Holiday
11	W	22-Feb	Advances Technology Discussion group 3
12	M	27-Feb	Book Discussion Advances in Technology (Movie).
13	W	29-Feb	Advances in Technology
14	M	5-Mar	Book Discussion Catch-up and Review
15	W	7-Mar	**Exam 1**
16	M	12-Mar	Flow of information: Discussion group 4
17	W	14-Mar	Book Discussion Flow of information
18	M	19-Mar	Economic Integration: Discussion 5
19	W	21-Mar	Economic Integration: Micro Lending & Social Businesses
20	M	26-Mar	Book Discussion: Governance
21	W	28-Mar	Governance
22	M	2-Apr	(Holiday)
23	W	4-Apr	(Holiday)
24	M	9-Apr	Conflict: Discussion Group 6
25	W	11-Apr	Out of Town
26	M	16-Apr	Book Discussion Conflict: Movie: *Why We Fight*
27	W	18-Apr	Conflict
28	M	23-Apr	Catch up and review.
29	W	25-Apr	**Exam 2**
30	M	30-Apr	**Save the world – e-Portfolio completed.** Presentations
31	W	2-May	Presentations
32	M	7-May	Presentations
33	W	9-May	Presentations Final Paper Due
34	W	14-May	**Exam 3**

Fort Hays State University

Hays, Kansas

Sample Syllabi • IDS 407 • Global Challenges
Instructor: **Professor Brett Whittaker**

Course Description

The purpose of this course is to educate and encourage the development of globally competent citizens and leaders. The course is designed to provide students with the knowledge, skills and attitudes to be engaged, responsible and effective members of a globally interdependent society. Most importantly, students will be asked to think deeply about their world (including its future, current issues, its impact on their local area, and our personal responsibility as global citizens).

Course Framework

The American Association of State Colleges and Universities (AASCU), *The New York Times* and the Center for Strategic and International Studies (CSIS), have joined together with eight college campuses (including Fort Hays State University) to develop resources that will facilitate the education of globally competent citizens. The goal of this initiative is to increase the number of undergraduates who possess the knowledge, skills and attitudes to serve as engaged global citizens.

Using the framework of Global Challenges—seven key worldwide trends identified by CSIS analyst Erik Peterson—this project will integrate resources from CSIS, *The New York Times* and other sources into a repository of materials for college faculty and students. The Global Challenges initiative is a research effort at CSIS that begins with the ambiguous question, *What will the world look like in 2025?* To answer this question, Global Challenges seeks to identify and analyze the driving forces of change that will transform our planet. The goal of Global Challenges is to promote strategic, forward thinking among current and future leaders.

The Global Challenges which will shape our world through the years 2025-2050 include:

• World population growth;
• Scarce global resources;
• Advancing technology and its diffusion;
• The flow of information and knowledge;
• Global economic integration;
• The nature and mode of conflict; and
• The challenges of governance.

Because of the diverse nature of the Global Challenges, students will be exposed to multiple academic fields of study. The objective of this interdisciplinary course is that students will develop both a comprehensive understanding of some of the

major global issues, as well as a heightened appreciation for how diverse topics are interrelated.

Subtopics and Themes

In addition to examining the seven global trends and potential futures illustrated by the Global Challenges, three related subtopics will be integrated into this course to expand and enhance the learning experience. First, students will be asked to study *current national and international events and issues and their relationship to the Global Challenges.* What current issues illustrate one of the Global Challenges? What current solutions to today's problems can improve the future consequences of that trend? Secondly, students will be asked to examine the *relationship between the Global Challenges and their local environment.* Is your local environment likely to experience the same trends recognized by the Global Challenges? What impact will these international trends have on your area? Thirdly, students will be asked to *look within themselves and explore where they can participate as an engaged global participant*. This subtopic is a "call to action" for participating students.

Learning Outcomes

■ **Knowledge**—Upon completion of the course, students will be able to:
  • Describe important global issues;
  • Understand and analyze issues in the contexts of world geography, history and political science;
  • Describe the current global nation state system;
  • Explain the interdependence of events and systems;
  • Understand how local events relate to world trends; and
  • Describe how one's culture and history affects one's world view and perspective.

■ **Skills**—Upon completion of the course, students will be able to:
  • Obtain relative information related to global issues;
  • Analyze and evaluate the quality of information obtained;
  • Think critically about problems and issues;
  • Make decisions with a worldwide perspective;
  • Engage in forecasting and forward thinking;
  • Communicate effectively both in writing and verbally;
  • Communicate and interact effectively across cultures; and
  • Take action to promote positive change locally, nationally and internationally.

■ **Attitudes**—Upon completion of the course, students will be able to:
  • Be open to new ideas and perspectives;
  • Value differences in people and cultures;
  • Be intellectually curious about the world;
  • Reflect on one's place in the world in connection with humanity;
  • Engage in an ethical analysis of issues and have empathy for one's fellow human beings; and
  • Feel a sense of responsibility to serve as an agent of change.

Course Format and Epsilen System

This course will be offered via the Epsilen Course Management System. The semester will be divided up into nine modules, each containing information specific to that point in the course. Students will be asked to view materials, read articles, participate in interactive activities and complete any other class assignments utilizing the Epsilen system.

Textbooks and Materials

This course does not utilize a traditional textbook. Rather than a single book, we will utilize a host of different resources linked through Epsilen and *The New York Times* Knowledge Network. Unless otherwise indicated in the module, students will be required to view all of the materials provided in this course through Epsilen.

Course Outline

■ **Introduction and Overview**
  • Module #1—Introduction

■ **Studying the Seven Revolutions**
  • Module #2—Population
  • Module #3—Resource Management
  • Module #4—Technology
  • Module #5—Information
  • Module #6—Economic Integration
  • Module #7—Conflict
  • Module #8—Governance

■ **Strategic Leadership—Call to Action**
  • Module #9—Conclusion

Course Assignments and Gradebook

Student performance in this course will be based on the following assignments and activities:

• Module Quizzes (6)	420
• Module Response Papers (1)	70
• In-Class Activities and Discussions	100
• Taxonomy	100
• Service-Learning Project Proposal	25
• Service-Learning Project Launch	75
• Service-Learning Project Reflection	75
• Exam 1	100
• Exam 2	100
• **Total**	**965**
• **Extra Credit Assignment**	**25**

Detailed Assignments

- **Module Quizzes**—Students will be required to take 6 quizzes over the course of the semester.

- **Module Response Papers**—Students will be required to submit 1 response paper on Economic Integration over the course of the semester. This paper will be a critical reflection over the materials from the preceding module. The paper will be discussed in greater depth at the beginning of the module.

- **In-Class Activities and Discussions**—Students will be required to attend and actively participate in the class sessions. Participation will include reading and watching materials prior to the session in order to be prepared to discuss the materials.

- **Taxonomy**—Students will be required to complete a taxonomy of relevant materials related to one of the modules. Students are encouraged to select an area of interest related to their major, program of study, or future research interests.

- **Service-Learning**—Students will be required to participate in a service-learning project in this class. This project will span the last half of the semester, and will involve three distinct elements. A detailed description of the assignment will be provided in class.

- **Extra Credit**—Students will be given the option of submitting an assignment for extra credit.

Fort Lewis College

Durango, Colorado

EGC 310 • Seven Global Revolutions • Summer 2011
Instructor: **Dr. Paul T. McGurr**

Catalog Description

Life-sustaining global systems are facing serious challenges both today and in the near future. In collaboration with Center for Strategic and International Studies' Seven Revolutions project, students will learn about the ways humans, as part of the larger socio-cultural environment, can and must participate as active global citizens. We will focus on good governance through effective and enduring policy.

Course Description

Seven Revolutions is a project led by the Global Strategy Institute at the Center for Strategic and International Studies (CSIS) to identify and analyze the key policy challenges that policymakers, business figures and other leaders will face out to the year 2030. It is an effort to promote strategic thinking on the long-term trends that too few leaders take the time to consider. In exploring the world of 2030, CSIS has identified seven areas of change expected to be most "revolutionary":

• Population
• Resource management and climate change;
• Technological innovation and diffusion;
• Development and dissemination of information and knowledge;
• Economics;
• The nature and mode of security; and
• The challenge of governance.

Each of these seven forces embodies both opportunity and risk in the years ahead. Together, they will transform the way we live and interact with one another. That is why they are called the "Seven Revolutions."

Source: *http://www.csis.org/gsi/seven_revolutions.*

Overview of Course

The Seven Global Revolutions have been identified by the Global Strategy Institute at the Center for Strategic and International Studies (CSIS) as:

• Population
• Resource management
• Technology
• Information and knowledge
• Economics

- Security
- Governance

We will address these issues by open discussion and by examining the issues in relationship to different countries outside the United States.

Each student will select a country from one of the following four categories:

- Advanced
- Newly industrialized
- Emerging
- Less developed

Analysis of the impact of the seven global revolutions will be performed on individual countries. At the end of the semester there will be group discussion to compare and contrast how the seven revolutions impact the different categories of countries.

The assignments to be completed by the student include:

- **Original Country Research**
  Using the Central Intelligence Agency's (CIA) *The World Factbook* (yes, that CIA; alternative sources are acceptable if the same information can be found) at *https://www.cia.gov/library/publications/the-world-factbook/index.html*, students must become familiar with the country including:

  - Geographic location
  - Neighboring countries

The country's ranking in the following areas, along with the countries adjacent in the rankings. The report should include similarities and differences with the countries adjacent in the listings:

- Population
- Birth rate
- Gross domestic product (GDP)
- GDP per capita
- Phones
- Internet users
- Military expenditures

This research will be turned in during the first week of class to ensure the student is familiar with the country that will be analyzed against the seven global revolutions.

Individual Revolutions

Assignments on the seven individual revolutions will take the same three-part format:

■ **Part 1**—Consideration of global question (taken from *Taking Sides: Clashing Views on Global Issues,* 6th ed.) from the perspective of the country being analyzed. A one-page paper indicating whether you agree with the "yes" or "no" perspective and how the issue affects your country is due at the start of class on the day the issue will be discussed.

   • **Population—Issue 1**
     "Are declining growth rates rather than rapid population growth today's major global population problem?"

   • **Resource Management—Issue 9**
     "Is the threat of a global water shortage real?

   • **Technology—Issue 11**
     "Is the international community adequately prepared to address global health pandemics?"

   • **Information and Knowledge—Issue 14**
     "Is the world a victim of American cultural imperialism?"

   • **Economics—Issue 15**
     "Is the global economic crisis a failure of capitalism?"

   • **Security—Issue 22**
     "Has Al-Qeada and its Jihad against the United States been defeated?"

   • **Governance—Issue 13**
     "Is globalization a positive development for the world community?"

■ **Part 2**—Each student is expected to view all the TED videos (found under TED views on the course O drive) and specifically report on any two of the videos using the TED Questionnaire (found under TED questionnaire on the course O drive). All students need to be ready to discuss all the videos in class.

■ **Part 3**—Written summary report and in-class presentation on the impact of the specific revolution on the country of choice and its citizens. The report can be an in-depth look at one specific aspect of the revolution or can take a broader view of the overall impact of the revolution. This report must include library or Internet research and identification of at least five (5) articles related to the seven revolutions and the country being analyzed (the report must include a bibliography indicating what sources were used).

Issues for research might include but not be limited to:

- **Population**—Aging of population, birth rate, growth rate, infant mortality, HIV/AIDS, infectious diseases, urbanization.

- **Resource Management**—Natural Resources, land use, irrigation, electricity, oil, natural gas, current environmental issues, water shortages, alternative energy.

- **Technology**—Communication, mobile phone use, genetically altered food, manufacturing growth, high technology industries.

- **Information and Knowledge**—Internet use, censorship, radio and television availability, newspaper readership, educational systems.

- **Economics**—Components of GDP, occupation of labor force, inflation, exports, imports, World Bank loans, future growth potential.

- **Security**—Civil wars, international disputes, terrorism, refugees and displaced persons, military expenditures, internal disputes.

- **Governance**—Government type, corruption, number of administrative divisions, independence history, reliance on other countries, legal system.

Final Papers and Presentations

As a wrap-up of the course, the students must assimilate what they have learned and identify possible responses to the one or more of the seven revolutions addressed. The following assignments will show that this assimilation has been accomplished:

- **Individual Paper**—Each student will complete a "wrap around" paper. Incorporating the individual papers on the impact of the specific revolutions, the student will identify the most pressing concern facing the country analyzed. The pressing concern must be derived from the previous papers on the seven revolutions. The student will then propose a possible, practical response that would alleviate the concern. The response must include information on who might initiate the response; how the response could be done; what changes would occur and how the changes would improve the country; how the initiative might be funded; and how the initiative will change the country by the year 2030.

- **Final Presentation**—Using the single pervasive issue from the "wrap around paper" as a focal point, the student will make a PowerPoint presentation to the class outlining the impact of the issue on the country, what response might alleviate the concern, and how the proposed response might be implemented.

Course Materials
- Required Text: *Taking Sides: Clashing Views on Global Issues* (6th ed.) James E. Harf and Mark O. Lombardi, 2010, McGraw Hill, ISBN 0-07-7381925-0.

- Various sources provided by the Global Strategy Institute at the Center for Strategic and International Studies (CSIS).

Course Outcomes/Assessment Techniques

After a student has completed a course or an experience that counts for the EGC (Education for Global Citizenship) requirement, they will have met the following college-wide liberal education and EGC outcomes:

Liberal Education Outcome (learning as inquiry)—The ability to use modern methods to access, analyze, interpret and apply a wide range of information, data and appropriate sources.

- **Course-Specific Outcomes**—The student will use multiple sources of information to determine how the seven global revolutions impact one specific country in the world.

- **Assessment Tools**—Each student will select a country and examine the seven revolutions and their impact on the specific country. Assessment will include review of the sources used and the interpretation of the information gathered as shown in various reports.

Liberal Education Outcome (Critical Thinking as Problem Solving)—The ability to analyze, synthesize, evaluate and apply information in order to solve complex problems.

- **Course-Specific Outcomes**—The student will determine how seven complex global revolutions impact one specific country in the world and prepare reports on how the problems arising from the revolutions might be addressed.

- **Assessment Tools**—Each student will write individual reports on the impact of the revolutions on a specific country. They will then try to come up with a possible solution that best serves the specific country and other countries in the world. The students will be assessed on the quality of their arguments and the possibility of their proposed solution.

Liberal Education Outcome (communication as intellectual contribution)—The ability to contribute to scholarly understanding of a subject by balancing complexity and clarity of argument, clear conceptual organization of evidence, and adaptation to context and audience.

- **Course-Specific Outcomes**—The student will write multiple papers, along with a summary "wraparound" paper, to show understanding of the impact of the seven revolutions on a specific country.

- **Assessment Tools**—Each student will be assessed on the quality of their writing including grammar, structure and ability to provide clear information on complex subjects.

Liberal Education Outcome (action as responsible application of academic learning)—The ability to utilize all of the above to make positive contributions to one's community and the larger society.

- **Course-Specific Outcomes**—After seeing how the seven revolutions impact a specific country, students will propose a possible, practical coordinated response that would alleviate the concern they believe is most important.

- **Assessment Tools**—Each student will present an oral and a written presentation on a significant worldwide problem. Each student will be assessed on the possibility of the proposed solution to the problem analyzed.

EGC Outcome—Demonstrated an awareness of the global dimensions of social, ecological, political, economic or cultural systems.

- **Course-Specific Outcomes**—The student will become aware of the seven areas of change that embody both opportunity and risk to the world in the days ahead. These areas are called the "seven revolutions."

- **Assessment Tools**—Each student will select a country and examine the seven revolutions and their impact on the specific country. Assessment of student awareness will be through the three-part assignment on the individual revolutions.

EGC Outcome—Critically analyze the global phenomena, problems, issues or topics that are the specific focus of the course using diverse cultural perspectives and multiple disciplinary frameworks.

- **Course-Specific Outcomes**—The student will analyze the seven global revolutions in the context of a specific country. As the seven revolutions address different areas of focus, by its nature the course will require the students to analyze using multiple disciplinary frameworks.

- **Assessment Tools**—Each student will write a paper analyzing the impact of the seven revolutions on a specific country. Assessment of student analysis of the issues will be through the final individual paper.

EGC Outcome—Identified possible responses to the global phenomena, problems, issues or topics that are the specific focus of the course. These responses may be enacted by individuals, social networks, movements, organizations, governments or other entities.

- **Course-Specific Outcomes**—As a culmination of the student's country analysis, each student will identify a pressing concern in the country related to one of the seven revolutions. The student will propose a possible, practical response that would alleviate the concern.

- **Assessment Tools**—Each student will write a "wraparound" paper analyzing the impact of the seven revolutions on a specific country and will propose a response to a specific concern. A final PowerPoint presentation will also be prepared. Assessment of student identification of a potential response to the concern will be through the final individual paper and presentation.

Grading

Student grades will be based upon a 1,000-point scale. The final score will consist of grades on attendance, projects related to a specific country, and a final group project in the following proportions:

Country General Information		100 points
Daily Attendance	25 @ 4 points each	100 points
Daily Participation	25 @ 4 points each	100 points
Individual Revolutions 7 projects tied to country	Part 1. Prelim response to global issue, 20 points Part 2. Response to TED videos @ 10 points each (for total of 20) Part 3. Country report on revolution, 30 points	490 points
Summary Report		100 points
Final Presentation		110 points
	Total:	1,000 points

Class	Date	Discussion Points	Assignments Due	Notes
1	June 6	Introduction to Seven Revolutions	Country Selection	
2	June 7	Introduction to Seven Revolutions	Country Research	
3	June 8	Population—Discussion	Taking Sides: Issue 1	
4	June 9	Population—TED	TED Questionnaires Population	
5	June 10	Population—Reports		
6	June 13	Environment/Resource management—Discussion	Paper on Population Taking Sides: Issue 9	
7	June 14	Environment/Resource management—TED	TED Questionnaires Environment/Resources	
8	June 15	Environment/Resource management—Reports		
9	June 16	Technology—Discussion	Paper on Environment Taking Sides: Issue 11	
10	June 17	Technology—TED	TED Questionnaires Technology	
11	June 20	Technology—Reports		
12	June 21	Information Dissemination—Discussion	Paper on Technology Taking Sides: Issue 14	
13	June 22	Information Dissemination—TED		
14	June 23	Information Dissemination—Reports	Research Summary—Information	
15	June 24	Economic Integration—Discussion	Paper on Information Taking Sides: Issue 15	
16	June 27	Economic Integration—TED	TED Questionnaires Economics	
17	June 28	Economic Integration—Reports		
18	June 29	Security—Discussion	Paper on Economy Taking Sides: Issue 22	
19	June 30	Security—TED	TED Questionnaires Security	
20	July 1	Security—Reports		
21	July 4	Governance—Discussion	Paper on Security/Conflict Taking Sides: Issue 13	
22	July 5	Governance—TED	TED Questionnaires Governance	
23	July 6	Governance—Reports		
24	July 7	Final Presentations	Paper on Governance	
25	July 8	Final Presentations	"Wrap around" Country Paper	

Georgia College

Milledgeville, Georgia

GC1Y 1000 • Seven Revolutions I • Spring 2012
Instructor: **Dr. Steven Elliott-Gower**

"[Y]our task is not to foresee the future, but to enable it."
—Antoine de Saint-Exupéry, The Little Prince

Introduction

In this GC1Y seminar, we will study seven critically important global issues and the relationships between and among those issues.

Course Goals

Students who successfully complete this course will be able to:

• Describe major global issues shaping our world.

• Think and write critically about these global issues.

• Compare and contrast different national perspectives on these global issues.

Course Objectives

In order to successfully complete this course, students will:

• Describe, in forums and blogs, critical aspects of major global issues.

• Illustrate, in blogs, different national perspectives on global issues and their impacts.

• Employ, in forum entries, the Universal Intellectual Standards of clarity, accuracy, precision, relevance, depth, breadth, logic and fairness in answering questions about these global issues.

• Apply knowledge and critical thinking skills in decision-making simulations.

Seven Revolutions

The Center for Strategic and International Studies' Seven Revolutions project will be our guide to the study of global issues. These seven revolutions are issues that are going to transform the world in which we live over the next few decades:

• Population
• Natural Resources
• Technology
• Information
• Globalization
• Conflict
• Governance

Epsilen *(www.epsilen.com)*

Most of the course information and materials (including the lesson-by-lesson course outline, reading and other assignments, forums, blogs and grades) are on Epsilen—a web-based learning management system. Don't worry! It's really easy to use. You should sign onto Epsilen and create a profile page during the first week of class.

Assessments

- **Quizzes (30%)**—Six online quizzes (5% ea.) using multiple-choice, true/false and fill-in-the-blank questions. Many of these questions will be based on readings, presentations, discussions and class notes, but some may require you to do a little research.

- **Forum Questions (35%)**—You will be asked to think critically about each of the seven revolutions by responding critically to a forum question in Lessons 2-8 (5% ea.). Use the information in the "critical thinking" section (under Lesson 1 on the website) to guide your answers to these forum questions. You should include at least one primary source, and at least two secondary sources in each response. Your forum responses should be about a half-page (250-300 words).

- **Global Village Blog (35%)**—You will be assigned the role of a global villager in the first week of class. You will develop your global villager, giving him/her a name, a residence, a religion, etc., etc., (see class website) and then, through research, write a half-page or so (250-300 words) on each of the seven revolutions (5% ea.) from the perspective of your global villager on a class blog. You should include at least one primary source, and at least two secondary sources in each response.

Simulations

This class will include two simulations, each played over 2-4 class periods. One is called "Globalization and Nigerian Oil"; the other is called "Land Acquisition in East Africa."

These simulations are designed to help you apply what you've learned about global issues to specific situations. This application will, in turn, deepen your understanding of those global issues.

Readings

There are no books you need to purchase. All readings, audio/video materials, and other resources can be found on the class website or will be provided in the form of class hand-outs.

The New York Times (available from news stands on campus). I encourage you to pick up a copy of the *Times* every day, look for Seven Revolutions-related stories, bring them to share in class, and/or post on your blog If they relate to your global villager.

Course Outline

Detailed outline with class assignments can be found on the course website on Epsilen.

■ **Lesson 1: Introduction**
- introductions
- pre-class survey
- syllabus
- learning objectives and activities
- course overview
- seven revolutions
- epsilen
- global village activity
- critical thinking
- miniature earth
- introducing global villagers
- introducing global actors

■ **Lesson 2: Population**
- learning objectives and activities
- population overview
- the population paradox (growth in developing countries, aging in developed countries)
- global migration
- urbanization

■ **Lesson 3: Natural Resources**
- learning objectives and activities
- natural resources overview
- water
- food
- energy

■ **Lesson 4: Technology**
- learning objectives and activities
- technology overview
- biotechnology
- nanotechnology
- robotization

■ **Lesson 5: Information**
- learning objectives and activities
- information overview
- data growth
- internet access
- social networking
- Information integrity

■ **Lesson 6: Globalization**
- learning objectives and activities
- economics overview
- economic integration
- new players
- poverty
- simulation, "globalization and Nigerian oil"

■ **Lesson 7: Conflict**
- learning objectives and activities
- conflict overview
- resource conflict
- asymmetric Warfare
- technology
- cyber warfare

■ **Lesson 8: Governance**
- learning objectives and activities
- governance overview
- non-state actors
- failed states
- global governance
- simulation, "land acquisition in East Africa"

■ **Lesson 9: Summary**
- post-class surveys
- student opinion survey

Teaching/Learning Philosophy

Human knowledge has exploded in the recent past. At the time of the Enlightenment, an educated person could know just about everything that there was to know. This is no longer possible, and so I think the critical skill to acquire now is to learn how to effectively search for, find and critically evaluate information. This is why we're having a couple of library sessions as a part of the class. And it means, among other things, that you need to be an active and engaged learner in this class; you'll have to do more than just show up and take notes.

San José State University

San José, California

Global Studies Online • GSO 187: Global Citizenship • Spring 2012
Instructor: **Dr. William J. Reckmeyer**

Course Description

This is an online undergraduate course for people who are interested in learning how to become global citizens who know how to live and work in the hyper-complex interdependent world of the 21st century. Global citizens are people who have developed the knowledge, skills, tools and values to understand the nature of globalization and collaborate with diverse groups of stakeholders to improve the common welfare. We will examine this emerging global world, including its positive and negative features, with particular attention to the critical issues that are challenging humanity's future progress. We will also explore the adverse consequences that are likely to occur if these challenges are not appropriately resolved; the use of a systems approach for addressing them in more integrated ways; and the paramount need for better cooperation among different cultures around the world. Our focus throughout the course will be on exploring the characteristics of global citizenship, with an emphasis on leadership, communication and systems thinking as fundamental core competencies.

Course Goals and Student Learning Objectives

This course is intended to help students develop a coherent framework for exploring the interaction of complex global concerns and working with others to make the world a better place. Our learning objectives reflect these general class goals. Upon successful completion of the course, students will be able to:

- **LO #1**—Understand the nature and practice of citizenship in a global context.

- **LO #2**—Comprehend the world as an interconnected whole, including critical global challenges and strategies for improving them.

- **LO #3**—Appreciate the important roles that leadership, communication and systems thinking play in enhancing the practice of global citizenship.

- **LO #4**—Recognize the ethical and social responsibility dimensions of global citizenship.

- **LO #5**—Apply the knowledge and skills learned in this course to work with diverse sets of stakeholders on complex issues that transcend local and national boundaries.

Our overarching goal is to increase participants' aptitudes for becoming more effective change agents and better global citizens. This course is being offered as part of SJSU's new collaboration with the Global Challenges Initiative of the American Association of State Colleges and Universities (AASCU), in partnership

with the Center for Strategic and International Studies (CSIS) and *The New York Times* (NYT).

Course Learning Activities

This is an upper-division seminar, in which students are expected to help each other accomplish these learning objectives through the following activities:

- Weekly podcasts and presentations by the professor;
- Weekly assignments from required and supplemental course resources;
- Interactive online discussions of the weekly assignments;
- Research paper on 3 critical global issues in one non-US country; and
- Final exam/reflective paper on global citizenship.

Together we will learn about global citizenship through a combination of teaching, research and practice to become better reflective practitioners.

Course Learning Outcomes

Students will demonstrate their relative mastery of course learning objectives through their performance on the following assignments:

- Regular and responsible participation in completing the weekly assignments and engaging in the online discussions (30%);
- Global issues research paper (40%); and
- Final exam/reflective paper (30%)

We have prepared detailed guidelines for all course assignments, which are available in electronic form on the D2L course website. They provide detailed rubrics and templates for completing the assignments and specify the criteria for grading those assignments so we can evaluate student learning on a clear and consistent basis.

Course Resources

Required Materials

- Center for Strategic & International Studies. *Seven Revolutions Project. http://csis. org/program/seven-revolutions.*
- Dower, Nigel & John Williams, eds. *Global Citizenship: A Critical Introduction.* New York: Routledge, 2002. ISBN: 0-415-93543-1.
- *New York Times. Global Challenges: Promise and Peril in the 21st Century. http:// www.ticketweb.com/t3/sale/SaleEventDetail?dispatch=loadSelectionData&eventId =4178865&pl=nytknow.*
- Tisch, Jonathan M. and Karl Weber. *Citizen You: Doing Your Part to Change the World.* New York: Crown, 2010. ISBN: 978-0-307-58848-7.

Library Liaison

Bernice Redfern, Associate Librarian, MLK Library (bernice.redfern@sjsu.edu).

Course Protocol

Students are expected to be actively engaged through the course, checking in weekly to access the topical assignments and participate in the online discussions. Completing these weekly assignments and preparing your research paper will be very time-consuming. Consequently, the ability to manage your time will be instrumental in shaping your success in this course. The online nature of this course has advantages as well as challenges. The most obvious advantage is that it provides you with tremendous flexibility in how you choose to conduct your work, but this flexibility can be challenging if you tend to procrastinate or are not a self-disciplined. In addition, if you tend to process information auditorially, you will need to adjust by getting into the habit of reviewing the instructions and guidelines carefully.

The best advice I can give is that you should develop a regular routine for the entire semester. This means checking in regularly every Monday morning to access the class assignments and setting aside time each week to work on them, as well as carving out additional time each week to work in parallel on your research paper. You are responsible for covering all of the assignments every week. If you cannot do this as specified in the guidelines for those activities, or have questions, please contact my Teaching Assistant as soon as possible so we can discuss how to address the situation. If there are bona fide reasons (emergency, illness, work conflict, etc.) for not completing assignments, we will do the best we can to work with you on developing a reasonable solution that to address the situation.

Assignments and Grading Policy

An integrated set of course materials are available in electronic form on the course D2L website, including detailed guidelines for all assignments that include specific grading criteria for each assignment. Students should familiarize themselves with all of these materials and use them to proactively prepare for class sessions and assignments on a timely basis. *Assignments will be penalized 10% each week they are late, unless there are compelling circumstances.* When preparing these assignments, it is important to remember that people who live and work in a global world must be able to communicate successfully with a broad variety of audiences. SJSU graduates are expected to write well and deliver effective presentations, which usually requires several iterations to refine before work is sufficiently polished to be shared with others. Students should pay close attention to the guidelines and templates for each assignment, especially in terms of ensuring that they are submitted in the appropriate format for that assignment. It is also helpful to seek feedback and suggestions from others (including members of the learning teams) to help finalize your work. In addition, the university offers assistance for students through group workshops and individual consultations at the SJSU Writing Center (*http://www.sjsu.edu/writingcenter/*).

San José State University

San José, California

Global Studies Online • GSO 187 • Global Citizenship • Spring 2012

This schedule is subject to change with fair notice, as announced on the D2L website.

Week	Date	Topics, Readings, Assignments, Deadlines
1	1/23/12	**Course Introduction** **Preparation:** Access D2L website & review course syllabus, class resources and assignment guidelines/rubrics. Access introductory Welcome Podcast #1 and Welcome Podcast #2; Course Podcast #1 and Course Podcast #2; Discussion Podcast #1; and Research Paper Podcast #1. Access Presentation Podcast #1 and Presentation #1. View videos on *Global Village* (Video #1) and *Gates Graduation Talk* (Video #2). Read supplementary resource article on *Global Citizenship* (Green) and *Citizen You* (Chapter 1). **Assignments:** Participate in weekly dialogue on presentations and readings (Discussion Item #1). Introduce yourself to the class and briefly describe what you're primarily interested in learning during this course (Course Item #1). **Discussion Deadline:** (Round #1): 1/25/12 @ 11:59 PM (CA Time) **Discussion Deadline:** (Round #2): 1/27/12 @ 11:59 PM (CA Time) **Course Item Deadline:** 1/27/12 @ 11:59 PM (CA Time)
2	1/30/12	**Complex Global World** **Preparation:** Access Presentation Podcast #2 and Presentation #2. View video on *Story of Stuff* (Video #3). Read *Citizen You* (Chapters 2-3); resource paper on *Educating Globally Competent Citizens* (CSIS); and resource paper on *7 Revolutions Student Guide* (AASCU). **Assignments:** Participate in weekly discussion on presentations and readings (Discussion Item #2). Select and submit a brief description of the 3 global issues & the non-U.S. country for your policy paper (Course Item #2). **Discussion Deadline:** (Round #1): 2/1/12 @ 11:59 PM (CA Time) **Discussion Deadline:** (Round #2): 2/3/12 @ 11:59 PM (CA Time) **Course Item Deadline:** 2/3/12 @ 11:59 PM (CA Time)
3	2/6/12	**Global Citizenship** **Preparation:** Access Presentation Podcast #3 and Presentation #3. View video on *Declaration of Global Citizenship* (Video #4). Read *Citizen You* (Chapter 4) and *Global Citizenship* (Chapters 1-2) **Assignments:** Participate in weekly discussion on presentations and readings (Discussion Item #3). Continue research for your global issues paper. **Discussion Deadline:** (Round #1): 2/8/12 @ 11:59 PM (CA Time) **Discussion Deadline:** (Round #2): 2/10/12 @ 11:59 PM (CA Time)
4	2/13/12	**Global Challenges** **Preparation:** Access Presentation Podcast #4 and Presentation #4. View video on *An Inconvenient Truth* (Video #5). Read *Citizen You* (Chapter 5), *Global Citizenship* (Chapter 14 & Chapters 16-17). **Assignments:** Participate in weekly discussion on presentations and readings (Discussion Item #4). Submit outline (1-2 pages / bullet points) for your global issues paper (Drop Box Item #1). Continue research for your global issues paper. **Discussion Deadline:** (Round #1): 2/15/12 @ 11:59 PM (CA Time) **Discussion Deadline:** (Round #2): 2/17/12 @ 11:59 PM (CA Time)

Week	Date	Topics, Readings, Assignments, Deadlines
5	2/20/12	**Global Dilemmas** **Preparation:** Access Presentation Podcast #5 and Presentation #5. Read *Citizen You* (Chapter 6) and *Global Citizenship* (Chapter #10). **Assignments:** Participate in weekly discussion on presentations and readings (Discussion Item #5). Continue working on your global issues paper. **Discussion Deadline:** (Round #1): 2/22/12 @ 11:59 PM (CA Time) **Discussion Deadline:** (Round #2): 2/24/12 @ 11:59 PM (CA Time)
6	2/27/12	**Systems Thinking** **Preparation:** Access Presentation Podcast #6 and Presentation #6. Read *Citizen You* (Chapter 7-8). **Assignments:** Participate in weekly discussion on presentations and readings (Discussion Item #6). Submit global issues paper (Drop Box Item #2). **Discussion Deadline:** (Round #1): 2/29/12 @ 11:59 PM (CA Time) **Discussion Deadline:** (Round #2): 3/2/12 @ 11:59 PM (CA Time)
7	3/5/12	**Systemic Global Citizenship** **Preparation:** Access Presentation Podcast #7 and Presentation #7. View video on *Mindwalk* (Video #6). Read *Citizen You* (Chapter 9) and *Global Citizenship* (Chapter #15). **Assignments:** Participate in weekly discussion on presentations and readings (Discussion Item #7). **Discussion Deadline:** (Round #1): 3/7/12 @ 11:59 PM (CA Time) **Discussion Deadline:** (Round #2): 3/9/12 @ 11:59 PM (CA Time)
8	3/12/12	**Course Synthesis** **Preparation:** View videos on *Nothing Short of a Revolution* (Video #8) and *Stand by Me* (Video #9). Read resource piece on *Perlman Concert* (Riemer). **Assignments:** Submit final reflective paper on *Global Citizenship: Lessons Learned* (Drop Box #2). **Deadline:** 3/16/12 @ 11:59 PM (CA time).

SAN JOSÉ STATE
UNIVERSITY

**GSO 187
Global Citizenship
(Spring 2012)**

Research Paper
—Evaluation Form—

Student _____ **Topic** _____ **Grade** _____

Evaluation Criteria	Score
Content (70%)	
Organization (5%)	
Composition (10%)	
Materials (5%)	
Overall Impact (10%)	
Total (100%)	

Note: Papers must be submitted in proper academic format as specified in *Turabian's Quick Guide* and as exemplified in the associated template for this assignment. Papers that do not comply with all of the required editorial standards for the major formatting elements (title pages, margins, page numbers, citations and bibliography) **will be returned unread and considered late**. Papers will be penalized 10% each week they are late, as specified in the syllabus for this course.

A+ = 97-100	B+ = 87-89	C+ = 77-79	D+ = 67-69	F = 0-59
A = 93-96	B = 83-86	C = 73-76	D = 63-66	
A- = 90-92	B- = 80-82	C- = 70-72	D- = 60-62	

Assignment

Introduction

As global citizens, by virtue of our shared roles as human beings living on Planet Earth, we have both the right and the responsibility to help make the world a better place. Effective global citizenship involves more than being *informed* about the common challenges facing people in different parts of the world; it reflects a commitment to being *engaged* in working to improve conditions. Human ingenuity has generated enormous progress since the origins of our species, especially during the past 600+ years when the rise of a scientifically-based industrial western society led to the emergence of a complex global world. Prosperity has not been evenly distributed, however, and that progress has also created major dilemmas as we enter the 21st century.

One of the most insidious and prevalent dilemmas is the tragedy of the commons, in which the narrow-minded pursuit of self-interest produces adverse unintended consequences for the greater whole. We live in a deeply interconnected world, one that is growing more interdependent as it becomes more globalized, and we can no longer live our lives without considering the broader collective consequences of our individual activities. Everything we do affects the world around us—physically, biologically and socially. Gone are the days when humanity could act with relative impunity, using the planet as both an unlimited fountain of resources and an unlimited garbage dump. We are beginning to realize that we have to treat the planet and other human beings better than we have been doing, or else we face the likelihood of increasingly severe setbacks that threaten to compromise further progress for everyone.

This individual research paper is intended to enhance your appreciation of global citizenship by (1) examining pressing global issues in different parts of the world and (2) developing integrated strategies for improving them. The most pressing challenges transcend national boundaries and, as a result, they cannot be resolved without better collaboration. People are generally familiar with their own countries, too, as citizens/residents of our respective nation-states, so we also think it is vital for all of us to work outside of our comfort zones and learn about the realities facing other people who share the planet but often live under very different circumstances. The Center for Strategic & International Studies (CSIS) has identified Seven Revolutions that are essential knowledge areas for globally competent citizenship. The American Association of State Colleges and Universities (AASCU) has partnered with CSIS and *The New York Times* (NYT) to create an educational program for colleges and universities to help people develop competencies in these areas, through its new Global Challenges Initiative. These *Global Challenges* refer to seven transnational trends comprising 29 critical issues that are shaping humanity's future (Table 1).

Table 1. Global Challenges						
Population	**Resources**	**Technology**	**Information**	**Economics**	**Security**	**Governance**
Developing Countries	Water	Computation	Data Growth	Inter-Connections	Asymmetric Warfare	National Government
Aging	Food	Biotech	Internet Access	New Players	Hybrid Warfare	Failed States
Migration	Energy	Nanotech	Social Networking	Debt	Cyber Warfare	International Organization
Urbanization	Climate	Transhuman Singularity	Information Integrity	Poverty		Multi-National Corporations
			Knowledge			Non-Gov't Organizations

General Guidelines. Choose 3 different issues from Table 1, each from a different one of these *Global Challenges,* and examine how they collectively manifest themselves in a particular country other than the United States. You are free to select any issue and country you wish, as long as each student focuses on different issues and different countries so we can collectively examine a broader mix of issues and settings. You are also encouraged to choose issues and a country that are either somewhat familiar and/or of special interest so they are more relevant to your educational priorities. You should review more detailed information about these *Global Challenges* on the two required Internet resources for this course—the AASCU & New York Times eCourse website (*http://www.epsilen.com/crs/1272672,* under the Lessons tab on the left column) and the CSIS (*http://csis.org/program/ seven-revolutions*) website—to help select your 3 issues.

Specific Guidelines. This research paper should be a substantial effort (15-20 double-spaced pages) and will require you to critically evaluate and integrate information from a variety of sources and succinctly express your views. Your paper must be divided into formal sections and formatted as illustrated in the related template for this assignment. Your paper should clearly indicate the sources of information that have been used to prepare the paper and will likely include a combination of primary, secondary and tertiary sources that involve both library and Internet research. Examples of such sources include websites, peer-reviewed journal articles, government documents, scholarly and/or professional books, electronic documents, magazines and other sources of reliable information such as interviews, public opinion pieces and newspapers. The paper must include a **selected bibliography** with at least 8-10 different sources that include 1 government document, 1 scholarly book, 1 peer-reviewed journal article and 1 relevant website. Two professional guidelines that should be helpful in preparing your materials— *Universal Intellectual Standards,* for overall critical thinking, and *Turabian's Quick Guide,* for style and format matters—have been uploaded in the Course Assignments section of the D2L website for this course.

Content (Max = 70%)				
Outstanding (63-70)	**Very Good** (56-62)	**Adequate** (49-55)	**Inadequate** (42-48)	**Unacceptable** (0-41)
The paper addresses the assigned topic in a very clear, balanced and rigorous way.	The paper addresses the assigned topic in a fairly clear, balanced and regorous way.	The paper addresses the assigned topic in a moderately clear, balanced and rigorous way.	The paper addresses the assigned topic, but in an unclear and inadequate way.	The paper fails to adequately address the assigned topic in a clear way.

This research paper should address the assigned topic in a rigorous (thoughtful analysis) and balanced (breadth and depth) way, making salient points (relevant and important) that are insightful (original ideas and views) and supported with appropriate details (evidence, examples or logic).

Organization (Max = 5%)				
Outstanding (5)	**Very Good** (4)	**Adequate** (3)	**Inadequate** (2)	**Unacceptable** (0-1)
Paper addresses topic in a very coherent and structured way.	Paper addresses topic in a fairly coherent and structured way.	Paper addresses topic in a marginally coherent and structured way.	Paper addresses topic in an incoherent and a poorly structured way.	Paper fails to adequately address topic in a coherent and structured way.

The paper should present its points in a coherent (focused and cogent) and well-structured (clear framework) fashion, providing a well-developed progression (thematic continuity) that is logically consistent (intelligible and integrated) from beginning to end.

Composition (Max = 10%)				
Outstanding (9-10)	**Very Good** (7-8)	**Adequate** (5-6)	**Inadequate** (3-4)	**Unacceptable** (0-2)
Paper is very well written with little/ no grammatical flaws.	Paper is fairly well. written with minor grammatical flaws.	Paper is marginally well written with a mix of grammatical flaws.	Paper is poorly written with numerous grammatical flaws.	Paper is largely incomprehensible and full of grammatical flaws.

The paper should be well written (facility of expression) and grammatically correct (syntax and construction) at all levels of composition (sentence, paragraph, section, chapter), using language and vocabulary that are mature (varied and eloquent), flow easily from point to point (clear exposition), are appropriate to the topic (accurate and sophisticated) and engage the audience (easily understandable).

Materials (Max = 5%)				
Outstanding (5)	**Very Good** (4)	**Adequate** (3)	**Below Average** (2)	**Unacceptable** (0-1)
Paper fully complies with 6/6 requirements (title page, page numbers, section names, fonts/ spacing, citations and bibliography).	Paper fully complies with 5/6 requirements (title page, page numbers, section names, fonts/ spacing, citations and bibliography).	Paper fully complies with 3/4 requirements (title page, page numbers, section names, fonts/ spacing, citations and bibliography).	Paper fully complies with 1/2 requirements (title page, page numbers, section names, fonts/ spacing, citations and bibliography).	Memo complies with 0/6 requirements (title page, page numbers, section names, fonts/ spacing, citations and bibliography).

The paper should be professionally prepared (overall appearance and quality), properly formatted (layout and mechanics), free of mechanical errors (spelling and punctuation) and well designed visually (tables, graphics, photos).

Overall Impact (Max = 10%)				
Outstanding (9-10)	**Very Good** (7-8)	**Adequate** (5-6)	**Inadequate** (3-4)	**Unacceptable** (0-2)
Presentation is provides a very persuasive appreciation of topic as a whole.	Presentation provides a relatively good appreciation of topic as a whole.	Presentation is provides a marginal appreciation of topic as a whole.	Presentation provides a poor/limited appreciation of topic as a whole.	Presentation provides little or no appreciation of topic as a whole.

The paper should provide a persuasive appreciation and engaging coverage of the topic as a whole, communicated in ways that are appropriate to an upper-division undergraduate level course and given the space/time allotted to prepare the paper.

University of Minnesota Duluth
Duluth, Minnesota

SW 1212 • Global Issues Honors Seminar • Spring 2011
Instructor: **Dr. Denny Falk**

Overview of the Course

The study of issues that can be viewed as global in nature is especially appropriate currently, since we have truly become what has been termed a "global village," and the decisions that we make in the next few years will determine the future of this village. The world has become smaller in many ways in the past few decades. We now have the capability of communicating with people around the world in less than a second. The decisions that are made in Beijing, Brussels or the caves of Afghanistan can have almost immediate implications for those of us who live in the middle of the United States.

Our world is currently facing many crises. Population is growing at an alarming rate in some regions; environmental concerns are everywhere; global resources appear to be dwindling; national security eludes many countries, especially as terrorism has become an international phenomenon; and human rights are violated in a variety of ways. These crises certainly represent significant problems facing our world today; on the other hand, they provide opportunities for us to bring about changes that will significantly increase the ongoing quality of life around the world.

In examining the crises cited above, and other global issues currently facing humanity, this course will attempt to achieve the following goals:

1. Students will adopt global perspectives in examining the critical issues currently facing our world, including problem solving, systems and futures perspectives.

2. Students will better understand the nature of the worldwide forces and problems we are currently facing and will analyze the underlying causes of these problems.

3. Students will recognize alternative solutions and opportunities associated with these problems.

4. Students will identify actions that can be taken locally that will address the global issues considered in this course.

5. Students will gain skills that will enable them to obtain and evaluate information about global issues and to take action to address these issues.

6. Students will be predisposed to be open to new ideas and perspectives and to be intellectually curious about the world.

7. Students will achieve other characteristics of globally competent citizens.

In attempting to accomplish these objectives, we will incorporate a variety of learning activities. One text will be made available to you, and a bibliography of additional readings appears in this book. The Internet is an invaluable source of information regarding global issues, and you will be provided a rich repository of web-based resources using the Epsilen platform and guidance in searching for additional resources. Class meetings will include "lecturettes" by the instructor, group discussions, exposure to Internet resources, guest presentations, videos and other activities. Students will also be encouraged to participate in additional outside learning activities, such as using interactive technologies to understand global issues.

Students are encouraged to participate actively in this class. Please come to class ready to discuss issues and contribute in other ways. If you have ideas on how a certain topic might be presented and applied, please express them; if you are aware of learning resources that are not being used, please suggest them. If we work together, this can be a very interesting and rewarding class for all of us.

Relationship to Liberal Education

This course is approved for Liberal Education credit both as a Category 8 course related to Contemporary Social Issues and Analysis, and as a Liberal Education International Perspective course. This course is intended to facilitate student development in the Liberal Education program in a number of areas. Critical thinking will be encouraged, as students use different perspectives to analyze key global issues. Basic values must be examined in considering topics such as human rights and emphases for economic and social development. Active citizenship and social responsibility is encouraged as students seek solutions to global problems and consider ways to "think globally and act locally."

The course is very consistent with the specific criteria for Category 8: Contemporary Social Issues and Analysis. By definition, the course covers large-scale contemporary issues, such as food and hunger, human rights, social and economic development, war and national security, and natural resources and the environment. Complex inter-relationships between social institutions and economic, political and other systems are carefully examined. Problem solving, the systems perspective and a futures perspective are most appropriate analytical frameworks for examining these complex, cross-disciplinary topics.

Historical roots of issues become apparent when causes of particular problems are examined. A systems perspective clearly indicates how one global issue is related to other issues. There are probably no more complicated issues facing the world today than the ones addressed in this course, leading students to recognize the complexity of the issues surrounding and affecting them. In identifying preferable futures and balancing the needs and concerns of different groups and nations around the world, students must confront profound ethical issues and begin to form principles to guide their thinking on possible solutions.

The course is also directly consistent with the intent and guidelines for the International Perspective theme. Examining these global issues increases students' awareness and understanding of issues from a global perspective. The issues addressed clearly transcend national boundaries and examine political and economic interdependencies. Students do indeed step outside of a national perspective and look at issues as they affect the world, as food and hunger, human rights and environmental issues are examined in a broad context. A goal of the course is to provide students the opportunity to integrate their understanding of issues and to identify actions that can be taken to address these complex contemporary issues.

Readings

Students will be encouraged to read and explore a variety of materials for this class. For many class periods some pages or other resources from the text or the Internet will be "required" to be read prior to class. The text for the course is available through the bookstore:

- Jackson, Robert, Ed. (2010). *Global Issues 10/11.* Guilford, CT: Dushkin/McGraw-Hill.

- The Internet will provide numerous additional resources for each topic in this course. Many of these resources will be available through Epsilen at *www.epsilen. com*, and some resources you will be asked to review will be listed in email messages sent to you.

Student Evaluation

Grades will be determined on the basis of learning contracts. In all cases it is expected that students will do approximately 120-135 hours of work during this semester for this course. All students will be expected to: **participate** in the classes; demonstrate an **understanding** of the concepts presented; demonstrate an **ability to apply** the concepts and information; and demonstrate an **ability to integrate** information, concepts and applications. A separate handout provides "Guidelines for Assignments."

Some of the options for meeting these expectations are listed below:

Goals	Suggested Method of Demonstration Participation
Participate in class activities.	Attend classes and complete brief reaction papers; participate as a "global villager" or see instructor about missing classes to plan alternative activities.
Complete several learning activities outside of class.	Devote at least five hours to attending campus or community presentations or propose alternative participation activities.
Understanding of Concepts and Information	
Demonstrate basic knowledge of issues, concepts and information related to global issues test.	Complete lesson quizzes, midterm and final exam or develop an alternative method to demonstrate knowledge.

Application of Concepts

Demonstrate an ability to apply perspectives from readings and class to global issues.	Participate in online forum **or** participate in ongoing discussion group **or** complete alternative application activity (e.g., ongoing journal).

Integration of Concepts

Demonstrate an ability to integrate concepts and information related to global issues.	Complete a "Taking Action" project **or** develop an alternative method to demonstrate an ability to integrate (e.g., complete a longer paper or a presentation on a topic of interest).

or

Develop a goal and a method of demonstration for yourself. Do stay within the framework of participation, understanding, application and integration related to global or international topics, but otherwise use your creativity (I appreciate student initiative and you can often engage in more interesting work). Please check with me ahead of time, however.

The relative weights of the various activities, tests and assignments are as follows:

Activity/Assignment	Percent of Grade
Class participation (e.g., reaction papers, blog; news forum)	20%
Outside learning (summaries)	10%
Lesson quizzes	10%
Midterm test	15%
Final test	20%
Application activities (e.g., forums, group discussions)	15%
Integration activities (e.g., taking action)	10%
Total	**100%**

Evaluation of Course an Instruction

During the semester I will solicit feedback from you regarding the quality of my instruction and this course. I will do this in three ways. Initially, I encourage you to give feedback at any time during the semester regarding how the course is going; please tell me what is valuable to you, what is not valuable and why. Secondly, halfway through the semester I will ask you to fill out a form that will ask your reactions to the course and we will discuss the results in class. Thirdly, a final evaluation of the course and instruction will occur on the last day of the session. All of this feedback is very important as it gives me information regarding the value of the course and how the course can be improved.

Tentative Schedule

Class	Topic	Readings
1	Introduction; get acquainted; overview of course; begin syllabus review	GI=*Global Issues*
2	The World as a Global Village; introduction to global issues and perspectives; learning contract	Review syllabus; GI (1-31)
3	Seven Revolutions (Erik Peterson) **(practice lesson quiz due)**	Epsilen resources
4	The People of the Global Village **(first blog due)**	**Share info**
5	Population: Overview and trends Learning contract due	GI (32-52); *UN Population Report*
6	Population: Perspectives **(blog, quiz)**	Epsilen resources
7	Population: Issues and actions **(first forum due)**	
8	Resource management: Overview and trends	GI (52-73; 122-29)
9	Resource management: Perspectives **(blog; quiz)**	Epsilen resources
10	Resource management: Issues and actions **One outside Learning Form due**	
11	Resource management; **(forum)** Special focus on food and hunger	UN FAO
12	Technology: Overview and trends **First set of application activities due**	Epsilen resources
13	Technology: Perspectives; issues and actions **(blog; quiz; forum)** Preview midterm test	Review GI Review Epsilen
14	**Midterm Test**	
15	Information: Overview and trends **Second outside learning form due**	Epsilen resources
16	Information: Perspectives; issues and actions **(blog; quiz; forum)**	
17	Economic Integration: Overview and trends	GI (74-121)
18	Economic Integration: Perspectives **(blog; quiz)**	Epsilen resources
19	Economic Integration: Issues and actions **(forum)** **Midterm test corrections due**	
20	Conflict: Overview and trends **(Taking Action plan due)**	GI (130-165)
21	Conflict: Perspectives **(blog; quiz)**	Epsilen resources
22	Conflict: Issues and actions **(forum)**	
23	Governance: Overview and trends	GI (166-181)

Class	Topic	Readings
24	Governance: Perspectives **(blog; final quiz)**	Epsilen resources
25	Governance: Issues and actions **(forum)**	
26	Global citizenship: Thinking globally, acting locally Focus on values and human rights **Outside learning activities due**	GI (182-199)
27	*Thinking globally, acting locally Epsilen resources **Presentation on organization due; (final blog due)**	
28	Thinking globally, acting locally **(final forum due)** **Application activities due**	
29	Thinking globally, acting locally; Taking Action/presentations **All requirements due**	
30	*Taking Action/presentations; summary and conclusion; evaluation	

*Indicates a class when a reaction paper will be requested.

Western Kentucky University

Bowling Green, Kentucky

Hon 300 • The Road Ahead • Spring 2012
Instructor: **Nathan Phelps**

Course Description

This course will examine the implications of seven global trends that will transform the world over the next 30 to 40 years. These trends include: population/demographic developments; resource management issues; technological developments (especially in computation, artificial intelligence, robotics, nanotechnology and biotechnology/pharmacology); the expansion of access to information (and the effect of these changes on interpersonal relations and on the creation of knowledge); global economic integration; conflict and security concerns (including causes and resolutions, and weapons/methods); and the evolving nature of governance/decision-making processes and organizations. We will explore these seven trends/revolutions through common readings, web-based materials, individual research, group presentations and daily class discussion.

The entire class will engage in a broad analysis of all seven trends; however, each student will be required to conduct individual research examining either one or two of these trends in detail, or looking at all of these changes through a single "lens" or point of view. For example, students may choose to examine these developments from the perspective of religion, gender, sustainability, a given locality or ethics (among others). In most cases, students will explore a lens that relates to their major or other area of interest. All students will be encouraged to consider the relationship between probable and preferable futures and the avenues/strategies available for individuals and groups to effect change.

Using and developing critical thinking skills will be at the center of everything we do in this course. We will be using the terminology and model developed by the Foundation for Critical Thinking to frame all of our discussions. The main goal is to learn to think deeply about these issues by exploring them from many different perspectives. You will be asked to develop your ability to produce different types of questions (about implications, assumptions, etc.) as we explore these issues together. It is my hope that by the end of the course, you will feel that you are better at developing questions to guide your thinking about any topic you wish to consider. Think of this class as an opportunity to develop both the skills you will need, and an understanding of the issues you will face, over the next 20-60 years.

Reading Materials

The only text you need to purchase for this course will be *Annual Editions: Global Issues* (27th Edition), edited by Robert M. Jackson.

However, we will also be reading from a variety of print and web-based sources, especially including: *The New York Times* and content from The Center for Strategic and International Studies (CSIS)—a non-partisan "think tank" located in Washington, D.C.

We will also read a variety of articles and excerpts from several books including: Ronald Wright, *A Short History of Progress;* Ehrlich and Ehrlich, *The Population Explosion;* David Hawkin, *The Twenty-first Century Confronts its Gods: Globalization, Technology and War;* Thomas Freidman, *The Lexus and the Olive Tree, The World is Flat, Hot Flat and Crowded; Taking Sides: Clashing Views on Global Issues*; *I Hate The 21st Century: A Reader,* edited by Clint Willis and Nate Hardcastle; P. W. Singer, *Wired for War: The Robotics Revolution and Conflict in the 21st Century;* Joseph Nye, *The Future of Power; Ian Morris, Why the West Rules—for Now;* Rutger Van Santen, et. al., 2030: *Technology that will change the World;* Max Brockman (ed.) *What's Next?: Dispatches on the Future of Science;* Michael Chorost, *World Wide Mind: The coming integration of Humanity, Machines, and the Internet.* These articles will either be handed out in class, linked through Blackboard or available on reserve in Cravens Library.

In addition, we will read articles from popular publications like the *Economist, Foreign Affairs, Wired, Newsweek, The Atlantic Monthly,* and scholarly publications like the *Journal of Nanotechnology and Biotech Journal.* We will also use information found on a variety of "news" websites, including NPR, BBC, CBC, *Beijing Times,* Al-Jazeera and other foreign media. Finally, we will watch a number of short videos on selected topics throughout the semester (especially TED talks).

Course Requirements

All students will be required to attend class every day; be informed participants in all class discussions; take quizzes and/or write brief weekly papers that address the readings; conduct independent research and write a final paper on their topic of choice. We will discuss all assignments in class and they will all be posted on Blackboard. *A word of caution: this is a seminar and it will not be possible for you to miss class and pass this course. GET THEE HERE.*

- **Final Grades:** Weekly papers and quizzes will constitute 60% of your final grade, 30% will come from your final paper and presentation, and 10% will come from your class participation. All assignments will be discussed in detail in class.

- **Tentative Course Calendar:** The following is an overview of the readings/discussion topics for the course. Because of the flexible nature of a seminar course, *this schedule is subject to change.* All assignments will be posted on Blackboard—along with other important class announcements and links. Please make sure you check our BB site frequently.

- **Week One:** Explore the Seven Revolutions Model; Demographic Change; Explore the mechanisms of change in the past and present.

- **Reading:** *New York Times*
  Overview of the *Times*/CSIS template; Student Guide
  Wright, "Rebellion of the Tools"
  Annual Editions: articles 1, 7

- **Week Two:** Demographic changes and the 21ˢᵗ Century
  - **Reading:** *New York Times*
    Revolution One on the CSIS/*New York Times* template; Student Guide
    Annual Editions: articles 8, 9, 46

- **Week Three:** Global Resource Management
  - **Reading:** *New York Times*
    Revolution Two on the CSIS/*New York Times* template; student guide
    Annual Editions: articles 2, 3, 11, 14, 28, 29

- **Week Four:** Global Resources cont.
  - **Reading:** *New York Times*
    Annual Editions: articles 12-17, 30, 31

- **Week Five:** Technological Trends
  - **Reading:** *New York Times*
    Revolution Three on the CSIS/*New York Times* template; student guide
    Garreau, "Be all you can be"
    Cooke, "Memory Enhancement, Memory Erasure: The future of our past"
    Venter, "DNA: Writing the software of life"
    Turkle, "The robotic moment"
    Annual Editions: article 6

- **Week Six:** Technology Trends continued
  Nye, "Does Technology Control Us?"
  Kurzweil, "The Singularity"
  Dyson, "Technology and Social Justice"
  Joy, "Why the future doesn't need us"

- **Week Seven:** The Information Age
  - **Reading:** *New York Times*
    Revolution Four on the CSIS/*New York Times* template; student guide
    Wajcman, "The feminization of work in the information age"
    Lanier, "Missing Persons"

- **Week Eight:** Spring Break!

- **Week Nine:** Global Economic Integration
  - **Reading:** *New York Times*
    Revolution Five on the CSIS/*New York Times* template; student guide
    Annual Editions: articles 18-24
    Brown, "Deflating the World's Bubble Economy"
    Fallows, "The $1.4 Trillion Question"
    Rothenberg, "The Grameen Bank"

- **Week Ten:** Conflict and Security Concerns
  - **Reading:** *New York Times*
    Revolution Six on the CSIS/*New York Times* template; student guide
    Annual Editions: articles 32-38
    Nye, "Power Transition: The Question of American Decline"
    Schmitt, "Vanishing Laws of War"

- **Week Eleven:** Issues of Governance and decision-making
  - **Reading:** *New York Times*
    Revolution Seven on the CSIS/*New York Times* template; student guide
    Annual Editions: articles 4, 5, 40, 44, 45
    Morris, "Why the West Rules—For Now"
    Rachman, "A World of troubles" and "Global Government: The World as Europe"

- **Weeks Twelve** and **Thirteen:** Analyzing these trends through different "lenses"

- **Weeks Fourteen** and **Fifteen:** Individual/group projects and analyses

"One of the biggest flaws in the common conception of the future is that the future is something that happens to us, not something we create."
—*Michael Anissimov*

"We can only see a short distance ahead, but we can see plenty there that needs to be done."
—*Alan Turing, 1950*

"Technological Progress is like an axe in the hands of a pathological criminal."
—*Albert Einstein, 1917*

"No exponential is forever . . . but we can delay 'forever.'"
—*Gordon E. Moore, 2004*

"There are more things in heaven and earth, Horatio, Than are dreamt of in your philosophy."
—*William Shakespeare, Hamlet*

Human history "is more and more a race between education and catastrophe."
—*H.G. Wells*

Handouts

A variety of course handouts and other materials are included in this section. These materials can be photocopied for classroom use.

Global Challenges

Revolution 1: Population
• Growth
• Aging
• Migration
• Urbanization

Revolution 2: Resources
• Food
• Water
• Energy
• Climate

Revolution 3: Technology
• Computation
• Biotechnology
• Nanotechnology
• Transhumanism

Revolution 4: Information
• Data Growth
• Access
• Social Networking
• Information Integrity
• Knowledge

Revolution 5: Economic Integration
• Globalization
• Emerging Players
• Debt
• Inequality and Poverty

Revolution 6: Security
• Asymmetric Warfare
• Hybrid Warfare
• Cyber Warfare

Revolution 7: Governance
• National Governments
• Failed States
• International Organizations
• Multinational Corporations
• Non-Governmental Organizations

Global Competencies

- **Knowledge**—Upon graduation, students will be able to:
  - Describe important current events and global issues (e.g., environment, economic, political, health, population).
  - Understand and analyze issues and events in the context of world geography.
  - Explain how historical forces impact current events and issues.
  - Describe the nation/state system with its strengths and limitations.
  - Describe cultures from around the world, including religions, languages, customs and traditions.
  - Identify transnational organizations (e.g., NGOs, multinational corporations) and their impact on current issues.
  - Explain the interdependence of events and systems.
  - Describe how one's own culture and history affect one's worldview and expectations.

- **Skills**—Upon graduation, students will be able to:
  - Obtain relevant information related to the knowledge competencies listed above.
  - Analyze and evaluate the quality of information obtained.
  - Think critically about problems and issues.
  - Communicate effectively, both verbally and in writing.
  - Communicate and interact effectively across cultures.
  - Speak a second language.
  - Take action to affect change, both individually and with a team.

- **Attitudes**—Upon graduation, students will be predisposed to:
  - Be open to new ideas and perspectives.
  - Value differences among people and cultures.
  - Be intellectually curious about the world.
  - Be humble, recognizing the limitations of one's knowledge and skills.
  - Reflect on one's place in the world and connection with humanity.
  - Engage in an ethical analysis of issues and have empathy for one's fellow human beings.
  - Feel a sense of responsibility and efficacy to take action based on ethical analysis and empathy.

Martin Shapiro (California State University, Fresno) uses this "Taking Action" assignment in his Honors 102: 7 Global Revolutions course.

Taking Action

A good portion of this class is spent learning about future trends and how they will impact your future. We talk about poverty, aging, learning, technology and loss of biodiversity and at times it seems a bit daunting. I think there is a great deal to learn from contributing to the future of humanity in a positive way. This assignment is intended for you to make that contribution. I would like you to commit at least five hours to this project from start to finish, so keep that in mind in your planning. I would also like these five hours to be spent on a project just for this class. That is, if you are already participating in some service-learning activity, you can do one of two things: contribute an additional five hours specifically dedicated to this project, or take on a different activity. One of the main purposes of this assignment is for you to expand your experiences when it comes to contributing to the community, the country or the world. A record of your taking action project needs to be documented on your e-portfolio, including a 600-1000 word reflection paper at the end. This assignment is worth 60 points and is graded on effort.

Here are just a few ideas:

1. Organize a book club with friends and family and read a book that deals with a global issue. Here are a few suggestions:
   • *Banker to the Poor* by Muhammad Yunus
   • A *Long Way Gone: Memoirs of a Boy Soldier* by Ishmael Beah
   • *An Inconvenient Truth* by Al Gore
   • *Physics of the Future* by Michio Kaku

2. Arrange to go to a school and talk with kids about a global issue.
   • Volunteer in a classroom
   • Mentor a kid's science fair project

3. Have a car wash to raise money to buy a family a goat. www.heifer.org goat = $120.00

4. Join an NGO and organize a party where you tell your friends and family about it:
   • *www.worldwildlife.org*
   • *http://www.kiva.org/*
   • *WeCanSolveIt.org*

5. Create a survey and collect data on what your fellow students are most concerned about in terms of these issues.

6. Create a YouTube video of people on campus and how they save the world.

7. Volunteer.
   • Volunteer Readers
   • Saint Agnes Hospice

- Community Food Bank
- Project Smart (Mentor program)
- Community Science Workshops
- Fresno Best/J.R. Best Advisor (after-school programs)
- FresnoConnect (helping with homework and computer labs)
- KCAO (helps with poverty issues)
- Planned Parenthood
- Valley Public Television
- Fresno Chaffee Zoo
- FCEOC Head start-preschool

Martin Shapiro (California State University, Fresno) provides students in his Honors 102: 7 Global Revolutions class the following exam review sheet.

Honors 102 Review Sheet for Exam 1

The exam will consist of 20 multiple choice questions worth 2 points each (40 points); 5 words (6 points each) and 3 essays (10 points each).

Terms to be addressed in the context of this class and 7 Revolutions

Center for Strategic and International Studies
- Carrying capacity
- *Malthus' Theory of Population Growth*
- Preventative vs. positive check on population
- Pronatalist
- LEDC
- MEDC
- Easter Island
- Informal Economy
- Total Fertility Rate
- Population Pyramid
- Demographic Transition Model
- Biodiversity
- Extinction
- Aragonite
- Carbonate
- invasive species
- tropical rainforest
- primate depletion
- Aquifers
- Recharge zone
- San Joaquin Delta
- Groundwater
- Cone of depression
- Ogallala Aquifer
- Lake Chad
- Three Gorges Dam
- Economic invisibility
- Obesity

- Diabetes
- Green revolution
- Norman Borlaug
- Semi-dwarf high-yield wheat
- Honeybees
- Hoki
- Ethanol
- Ethanol global production
- Corn subsidies
- Dead zone
- U.S. Farm Bill
- Corn subsidies
- Energy Independence and Security Act 2007
- Highly processed food
- Food miles
- Flex-fuel cars
- Biodiesel
- SVO
- Algae Biomass
- Cellulosic Ethanol
- Genetically Modified
- recombinant DNA
- Insulin
- Flavrsavr
- Bt protein
- Transgenic Pig
- Flounder-strawberry
- Artificial Meat
- Gene therapy
- GM salmon
- Green fluorescent protein
- Spider goat
- Genetic testing
- Epigenetics
- Preimplantation Genetic Diagnosis
- Eugenics
- Henry Goddard
- Immigration Act of 1924
- Eric R. Kandel
- CREB
- Doogie mouse
- NMDA
- Propanalol
- Face cells
- EEG
- PET

- fMRI
- singularity
- neurocognitive enhancement
- Emotiv

Multiple Choice
There will be two types of multiple-choice questions:

1. Specific information and statistics (listed below)
2. Questions related to whether you actually listened to, watched and read material in the assignments section (listed below).

Information and Statistics:
1. **Population:** Global population, population growth, projected growth by 2050. Energy consumption of the U.S. and the world average, India, France. China's fertility rates since 1970 to today and sex ratios.
2. **Biodiversity:** Current extinction rate estimations, percentage of people living within 100 km of the coast from 1990 to today, percentage loss of mangroves, approximate annual loss of acres of rainforest.
3. **Food:** Global malnutrition statistics. Obesity statistics in the U.S. today and in developing countries. Projected diabetes rate changes by 2030.
4. **Water:** Percentage of Earth water that is fresh. Percentage of fresh water that is accessible for human use. Percentage of water that is used in industry in the U.S. The average amount of water used daily in the U.S. and in Fresno. Water statistics in California comparing the northern and southern parts of the state. Statistics about bottled water. Percent of world diseases caused by poor sanitation.
5. **Technology:** Percentage of products in the U.S. that are genetically modified. Countries that produce the greatest percentage of ethanol; countries that import the most. Percent of corn that goes to ethanol in the U.S.

Articles, videos and podcasts:
1. World in Balance—interactive links
2. Steward Brand's TED talk
3. *China's One Child Policy* (article)
4. Hans Roseling's TED talk
5. Michael Pritchard TED talk on water filter
6. *NYT* article on water and china.
7. Pavan Sukhdev: Put a value on nature!
8. Radiolab Intelligent design
9. "Always on a Smartphone" (NPR)
10. *Scientist Push the Boundaries of Human Life* (article)
11. Nanotechnology (video)
12. Printing a Kidney TED talk.

I will pick 3 questions from the following list as essay questions on the exams:

1. One of your instructor's main points was that when talking about population growth and its affect on the world, it is not just about raw numbers. In what ways is the population problem more than just about an overall increase? Give some specific examples.
2. Compare and contrast the current and predicted population pyramids of developing and developed countries. Give specific examples of countries. What changes come with a changing pyramid?
3. In the video on population, they talk about how population changes affect countries differently. Compare and contrast India, Japan and Africa. This information can also come from article 7 and 8 in your textbook.
4. Describe four reasons it is important for developing countries to shift from high to low fertility rates.
5. Describe the history of China's one-child policy and how was it implemented. What were the effects in terms of total fertility rate, sex ratios and old-to-young ratios? What is the future of this policy?
6. Describe four risks of an aging population in the world. Give some specific examples from the lecture and the article on global aging.
7. Describe how population growth is so closely tied to reducing biodiversity. Provide some specific examples about animals and habitats that are in trouble and why.
8. Describe how human activity is causing coral reef depletion.
9. Your instructor mentioned that water is the topic that seems to be of most concern to those trying to predict the future. Why? How is water changing in the world in terms of amount, storage, industry, usage, pollution, safety? Can you give some specific examples?
10. From the movie, *Flow,* describe some very specific examples of problems facing the issue of water usage, privatization, contamination and distribution.
11. Describe the main issues facing water in California including distribution, usage, climate change and the San Joaquin Delta.
12. From the article in *Earth 3.0,* describe why it is so crucial to consider water and energy issues simultaneously.
13. Describe the problems associated with food in this world. Who has too little and why and who has too much? What are some of the causes and statistics associated with obesity? Is this a U.S.-only problem?
14. Describe the Green Revolution. What good comes from it and what are some problems? What is happening to the Green Revolution of food today?
15. Tell me the story of ethanol. How is it changing in the U.S., Brazil and other countries? Why is there such a big push for ethanol production? Describe some of the problems with ethanol, economically (prove a few statistics), environmentally, geopolitically, and as it relates to food distribution.
16. Describe some benefits and problems associated with genetically modified foods.

17. Describe some specific examples of plants and animals that are genetically modified. How has this changed over the past 10 years and what are some projected changes? Give specific examples.
18. Describe some advances in human genetics. What are some promises and what are the perils?
19. Describe some advances in neuroscience and neuroimaging.
20. From Joel Garreau's short videos, Ray Kurweill's TED talk and the NPR program "Always on a Smartphone," give specific examples of what the future holds for technology. Describe what they see as good and what they see as points of concern.

Paul McGurr, at Fort Lewis College, has used the following questionnaire in conjunction with TED talks.

TED Views
For each revolution, watch 2 of the videos from TED.

TED is a nonprofit devoted to "Ideas Worth Spreading." It started out in 1984 as a conference bringing together people from three worlds: technology, entertainment, design. Since then its scope has become ever broader. Along with two annual conferences—the TED Conference in Long Beach and Palm Springs each spring, and the TEDGlobal conference in Edinburgh each summer—TED includes the award-winning TEDTalks video site, the Open Translation Project and TED Conversations, the inspiring TEDFellows and TEDx programs, and the annual TED Prize.

For each video, complete the following questionnaire:

Student Name: _____

Video Watched: _____

Who was speaker? _____

How is s/he an expert? _____

List three (3) things you learned from the talk:

List two (2) ways this talk relates to your country:

Please rank this TED Talk on a scale of 1–5:
1. Of little use
2. Some insights
3. Interesting
4. Very Informative
5. Exceptional

Ken Hill (Kennesaw State University) uses a version of the "Prisoner's Dilemma" game to illustrate negotiating issues related to several of the global challenges.

The X/Y Game: Collaboration versus Competition

Citation: The X/Y game is a modification of an original activity – The Prisoner's Dilemma (The 1971 Annual: Volume III, Pfeiffer Consulting. John Wiley and Sons). The Prisoner's Dilemma constitutes a problem in game theory. It was originally framed by Merrill Flood and Melvin Dresher working at RAND in 1950. Albert W. Tucker formalized the game with prison sentence payoffs and gave it the "Prisoner's Dilemma" name (Poundstone, 1992). An adaptation of the activity was introduced to me in 1997 by the Operations Associates Group of South Carolina, and I have further developed it for use in the teaching of our course: KSU 1111-Tomorrow's World Today. I suggest doing some background reading on "The Prisoner's Dilemma" before launching into use of the activity.

Brief Synopsis/Description: Small groups explore the results of embracing collaboration in opposition to competition. In a series of "rounds," students discover, discuss and negotiate the concepts of winning and losing through interpersonal communication. The goal is to maximize profits and leverage the system.

Learning Outcomes: Critical Thinking, interpersonal and conceptual skills, communication skills and global perspectives/engagement.

Primary Teaching Points:
• You can't optimize the whole system by sub-optimizing its parts
• The fundamentals of human nature have dramatic effects on cultures in various settings
• Organizational culture and structure affect outcomes
• Entities of all kinds need to recognize integrity and communication
• The distinction between "Eastern" and "Western" cultures
• Acknowledge and connect the current polarization that we are experiencing globally and here in the United States within our political system. Discuss at the organization and individual level.

Time Required: 45 minutes – 1 hour

Facilitation/In Class Instruction:
1. Pre-activity set-up is advantageous. If you are able to have access to the space you will be working in, use the time to create flip charts for the scoring table and results template or utilize whiteboards or document cameras to project the information.
2. Minimally, set up the activity. Introduce it as the X/Y Game. Do not mention the concepts of collaboration and competition.
3. Tell the group that they will be divided into small groups (3-4 or 4-5). Groups should not exceed 4-5, as participation and involvement will be sacrificed.

Optimally, no more than 4 groups should be created; therefore, this activity is designed for approximately 20 participants plus observers should you decide to engage those.

4. There are three "templates" you should explain:
   a. X/Y Game Rules: "Win all you can," "strategy is important" and "have fun"
   b. Scoring – frame the game in terms of winning money or points
   c. Results
5. Take off from explaining the "results" tally to delineate the activity in six rounds—where each team will be asked to "throw" or hold up either an "X" or a "Y". Supply each team with a set of letters.
6. Give teams a minute or two to get organized, then announce "Round 1."
7. Continue as the "results" sheet indicates, tallying on the whiteboard or flipchart per the scoring guidelines. Note that "Round 3, 5 and 6" are N or "negotiation" rounds. During these rounds, each team will identify a representative to leave the room and caucus or negotiate what the team will "throw" in the round to follow. Also, note that values are doubled in rounds 4 and 5 and tripled in round 6.
8. Continue until all six rounds are completed.
9. Often as the activity plays out, I remind the group of the basic rules of the game—"win all you can," "strategy is important" and "have fun."

Debrief:

Typically (99 percent of the times that I have used this activity over the last 12 years), frustration continues to build as the rounds proceed. As you begin helping the group digest the activity you may simply ask, "How satisfied are you with the outcome?" or "Can anyone begin to see how things might be different?" Do be careful that the ultimate lesson of the activity is not surfaced until the end during the debrief.

Invariably, groups are completely unable to see the larger and very simple mathematical outcome, so as I begin to debrief I usually replace the numbers in the last column of the results sheet with the straightforward outcome. As human nature dictates and Western culture has reinforced, "winning" is all about me or my team and dominating other individuals or teams is desired even over the prospects of greater monetary gains. Lying, double-crossing and deception are universally chosen over honesty, trust and integrity—whether you are working with students or even adults. This activity is an excellent discussion starter for any number of topics connected with the social and interpersonal commentary of our times. Adapt your debrief to the appropriate scenario. I have used it on an individual level situation to discuss human relations between individuals; organizationally to discuss business units within a corporation or colleges within a university; and globally to attack larger issues like the current financial crisis and the environment or conflict. The message is simple: Collaboration typically yields a more desirable outcome than competition—or as it plays out—self-interest.

Relevant to a global challenges discussion, here are some topics to consider:

Resource issues:
- *Water:*
  - The 20 year "tri-state water war" currently experienced by Alabama/Florida/ Georgia. Alabama requires power, Florida managing its seafood industries and ecosystem issues and Georgia water and power for expansion.

- *Food:*
  - Commodities traders bidding up the price of food, leveraging the global food system (see "The Geopolitics of Food").
  - Affluent countries cutting side deals between countries (e.g. China/Philippines/ U.S.) and circumventing the creation of a more synoptic global food policy.

Economic Integration: The banking industry (e.g. Goldman Sachs/ Lehman Brothers) crisis that led to the global recession—leveraging subprime mortgages as securities to bid up and derail the global financial system—only to accept year-end bonuses after accepting government rescue/bailout.

Global Corruption/Security: (Mentioned by Peter Eigen of "Transparency International" in the TED talk below) *http://www.ted.com/talks/lang/en/peter_ eigen_how_to_expose_the_corrupt.html*

Governance: The polarization of the U.S. political system at the partisan or party level, as well as at the individual level, putting re-election and support of party or group affiliation over the larger interests of the nation.

Organizational: When units, divisions (or even individuals) work in a vacuum in pursuit of goals at the expense of collaborating groups (e.g. colleges [academic or advising units], departments [student orientation, enrollment management or auxiliary services], business units [customer service, marketing/analysis or collections units].

Individually: Even our homes and family units are constantly under threat because our individual wills or desires are often placed over the family (e.g., a divorce rate in first marriages of greater than 60 percent). What's the meaning and effect of this trend on society and culture?

Students often use Internet sites as a basis for learning about Global Challenges and related topics. Dennis Falk (University of Minnesota, Duluth) provides students with this "CARS" checklist as a basis for evaluating the credibility, accuracy, reasonableness and support present in a website.

CARS Checklist for Internet Source Evaluation*

Credibility
- Trustworthy source, the quality of evidence and argument, author's credentials, evidence of quality control, known or respected authority, organizational support.
- *Goal:* An authoritative source; a source that supplies some good evidence that allows you to trust it.

Accuracy
- Up-to-date, factual, detailed, exact, comprehensive, audience and purpose reflect intentions of completeness and accuracy.
- *Goal:* A source that is correct today (not yesterday); a source that gives the whole truth.

Reasonableness
- Fair, balanced, objective, reasoned, no conflict of interest, absence of fallacies or slanted tone.
- *Goal:* A source that engages the subject thoughtfully and reasonably; a source concerned with the truth.

Support
- Listed sources, contact information, available corroboration, claims supported, documentation supplied.
- *Goal:* A source that provides convincing evidence for the claims made; a source you can triangulate (find at least two other sources that support it).

When you evaluate a web resource for global issues topics, please incorporate criteria from the CARS checklist summarized above.

*This material is adapted from an online resource from Dushkin/McGraw-Hill, which was previously found at: *http://dushkin.com/online/webresearch/cars.mhtml.*

Three "global perspectives"—problem solving, futures, and systems—are presented in the introduction unit of Dennis Falk's SW 1210 Global Issues and SW 1212 Global Issues Honors Seminar courses. These perspectives, along with key questions to ask related to each of these perspectives, are then used to analyze each of the global challenges as they are covered in subsequent units.

Three Global Perspectives

Problem Solving Perspective

Problem solving provides a systematic process of examining an issue or situation and what can be done to address it. Using this process often enables a person to understand an issue or situation more clearly and suggests possible solutions. This process involves six steps that should be undertaken in order.

Step 1: Define the problem

Defining the problem involves identifying what about this situation is creating difficulties for people and preventing them from meeting their needs. The goal of this step is to develop a clear statement of the problem that is faced in this situation.

Step 2: Assess the causes of the problem

This step attempts to understand why a problem exists. One example of what happened prior to the problem that led to its emergence and what factors are currently maintaining the problem.

Step 3: Generate alternative solutions to address the problem

Solutions should be considered only after the problem has been clearly defined and the causes have been carefully assessed. The key idea here is to generate a number of possible solutions, waiting to evaluate these solutions until the next step. Brainstorming is a process that can help generate numerous possible solutions.

Step 4: Examine the advantages and disadvantages of alternative solutions and select a solution to implement

The advantages and disadvantages of the alternative solutions generated in step 3 should now be examined. Some possible solutions that were identified can be eliminated rather quickly, possibly because they are not feasible or ethical. Other solutions will require more careful consideration. The outcome of this step is to identify a solution or set of solutions that will address the cause and solve the identified problem.

Step 5: Implement the solution(s)

Once a solutions or set of solutions has been identified, the next step is to implement this solution. Often you cannot implement a solution on your own, but you can do your part and encourage others to participate in implementing a solution.

Step 6: Evaluate whether the solution(s) solved the problem
This step involves both monitoring the implementation of the solution and determining if the solution has in fact solved the problem.

Questions to Ask About Global Issues from a Problem Solving Perspective
1. What is the nature of the problem related to this trend or issue? How can we define the problem associated with this issue? How is this situation causing difficulties for some people and preventing them from meeting their needs?

2. What are the causes of the problem? What happened before this problem arose that created the problem? What current factors are maintaining this problem?

3. What are a number of alternative solutions to address the problem? How can the factors that created and are maintaining the problem be addressed?

4. What are the advantages and disadvantages of each of the alternative solutions? Which solution or combination of solutions should be adopted?

5. How can the solution be implemented? Who will need to do what and when?

6. How can we evaluate whether the solution solved the problem? How can we tell if the solution has been fully implemented? What will indicate that the problem has been solved?

The Futurist Perspective
People who study the future (futurists) use a number of key concepts that might be collectively termed the "futurist perspective" to understand the future. Thus, while psychologists might use terms like reinforcement, personality and self-esteem to understand human behavior, and economists might use concepts like supply and demand and gross domestic product to understand an economic system, many futurists use the following concepts to understand the future. These concepts can be most useful when examining the trends associated with the global challenges.

• **Non-Existence of the Future**
  The recognition that the future does not exist represents a departure point for the futurist perspective. For many aspects of the past, there are common agreements about the facts: the Declaration of Independence was signed in 1776, and a human being walked on the moon for the first time in 1969. Agreement about the present is also possible, such as the number of people in a particular room or the country where one can find the great pyramids. However, there is nothing certain about the future. The future does not exist in any concrete way.

• **Images of the Future**
  Although the future does not exist, people have images, or ideas, about the future, and these images or ideas exert powerful influences on how people behave in the present.

- **Alternative Futures**
  Images of the future can come in many forms, but a useful way to categorize these images involves possible, probable and preferable futures, which are described more fully below.

  - **Possible Futures:** Almost anything is possible in the future. Possible futures are limited only by the lack of imagination or nerve of those imaging possible futures.

  - **Probable Futures:** Some futures are more probable or more likely to occur than others. These futures are often arrived at by the extrapolation of past and current trends, whether in relation to levels of population growth or global warming. Forecasts are then made about what is most probably going to happen.

  - **Preferable Futures:** Only a few of the possible futures that one can imagine are preferable, that is futures that people would like to see come about. Such desirable futures are based on our values, aspirations and dreams. They embody our notions of what a better world might be like.

Systems Perspective

A systems or holistic approach to viewing the world emphasizes that everything is inter-related and must therefore be examined in context. Thus trends related to population impact, environmental resources and vice versa. All global trends affect and are affected by all other global trends.

Long-Term Time Perspective

Futurists often look five to 50 years into the future when trying to understand an issue. Many of us plan our lives day-to-day and some businesses seem only to look as far forward as the next quarterly report, but futurists take the long view.

Futures Methodologies

Futurists have many methodologies or tools that they can use to examine the future. *Trend extrapolation,* increasingly in the form of *computer simulations,* can be a valuable tool for forecasting population or other phenomena in the future. *Scenarios* are stories about the future that make an alternative future more real; science fiction writers have been using this tool for generations. A *futures wheel* can assist in examining inter-relationships and the implications of particular trends. *Cross impact analysis* and *relevance trees* are additional examples of futures methodologies. *Environmental impact assessments* and *social impact assessments* provide tools for examining the impact of specific possible futures on the environment and on human beings, respectively.

Creating the Future

Futurists believe that the actions (or inactions) of today are creating the future that we, or others, will experience. If the future does not exist and everything is inter-

related, one can readily conclude that the choices that we make today, individually and collectively, will influence or create the world in which we will live in the future. From a futurist perspective, anything our minds can conceive and belief, we can achieve.

General Questions to Ask About Global Issues from a Futurist Perspective

1. What are some images of alternative futures with respect to this issue?
    *   What are some possible futures?
    *   What are some probable futures?
    *   What are some preferable futures?

2. How can a systems or holistic approach be used to understand this issue? How is this issue related to other global issues?

3. How can this issue be understood using a long-term time perspective?

4. What futures methodologies could be used to understand this issue?
    *   Scenarios
    *   Futures wheel
    *   Trend extrapolation
    *   Computer simulation
    *   Environmental impact analysis
    *   Social impact analysis

5. How can a preferable future be created around this issue?

Information about using one of the futures methodologies identified above, a futures wheel, appears on the below.

Graphic of Futures Wheel
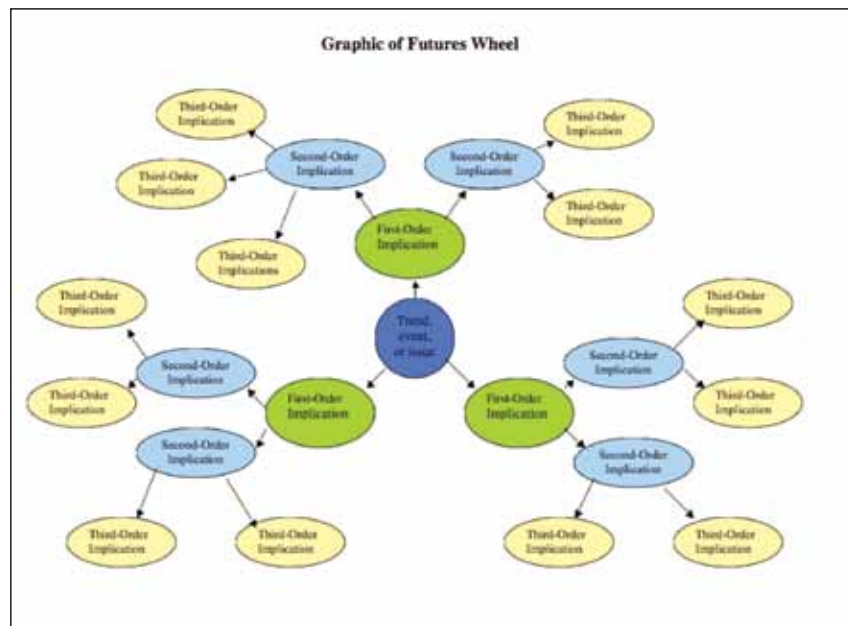
How to Create a Futures Wheel

Step 1
Write a global trend, event or issue in the center circle. Use the following questions to prompt brainstorming of the first-order implications or consequences. What is likely to happen first if this trend or event continues? What will be some of the immediate consequences if this trend or event continues? Record the first-order implications, circle them and connect them to the center circle.

Step 2
Select one first-order implication from the first round of brainstorming. Brainstorm its second order implications. (What is likely to happen first if this happens?) Record the responses, circle them and connect each to the first-order implication. Select another first-order implication and brainstorm its second-order implications. (What will be some of the immediate consequences of [fill in the blank with the first-order implication])? Record the responses, circle them and connect each to the first-order implication. Continue the process until second order implications have been brainstormed for each of the first-order implications.

Step 3
Repeat the procedure to get third order implications, and possibly fourth-order implications.

Systems Perspective
A systems perspective, sometimes called systems thinking, emphasizes that everything is inter-connected and related with everything else. In order to understand an issue or situation, one must not only seek a holistic understanding of a system itself, but must simultaneously understand its component parts and its context or environment.

Systems can be thought of as integrated wholes, sets of inter-related parts, irreducible wholes.

Systems dynamics describe some aspects of how systems work:
• Inputs—What comes into the system
• Outputs—What comes out of the system
• Transforming activities—What happens within the system to change inputs to outputs

Systems are holons, meaning that in order to understand a system, one must simultaneously examine the system itself (focal system), component parts and the environment.
Focal system—System of primary attention
Component parts (subsystem)—The basic parts of the focal system
Environment (suprasystem)—Those things outside the focal system that interact with it

A systems perspective emphasizes that everything is inter-related; multi-causality occurs between systems, within systems, and between the system and the environment. Thus, all global issues are affected by and affect other global issues.

A futures wheel can be used to examine how one revolution, trend or action can have widening effects.

Application of Systems Perspective to the Global Issues Course

A systems perspective can be applied to this Global Issues course in many ways. Because everything is inter-related, when examining a revolution or a global trend within a revolution, one can examine how this revolution or trend will influence a country, community or individual. Also, revolutions and trends affect one another.

Example of Applying the Systems Perspective

One can examine food from a systems perspective, looking at how the world as a whole functions to feed (to various degrees) 7 billion people.

This system can be thought of as an integrated whole or set of inter-related parts, which includes land, water, farmers, food processors, distributors, food consumers and other inter-related parts.

Systems dynamics observe that land, water, seed, fertilizer, machinery, human labor and animals are important inputs into the food system. Outputs include cereal, vegetables, bread, meat, beverages and fruits that are available for consumption. Transforming activities include planting seeds, tending the land, harvesting food, feeding animals, processing the food, storing food and food products, and distributing food to consumers.

The food system may be understood as a holon. The focal system is the overall food system, from inputs to consumption. The component parts include:
• The food production system;
• The food processing system;
• The food storage system; and
• The food distribution system.

The environment includes:
• Agricultural policy;
• Climate;
• The market economy;
• International relations;
• The availability of petroleum; and
• Many other factors.

To understand the food system, one must simultaneously understand these component parts and the environment of the system.

As with other systems, everything is interrelated in the food system. The food system impacts the physical environment (e.g., soil erosion) and the physical environment affects food production (e.g., drought). Food policy subsidizes the production and processing of some food but not others. The component parts influence one another, so if food distributors can make more money selling certain kinds of food, the food producers and processors will be more likely to provide that food. Other global issues, such as climate change, population growth, conflict, globalization and governance affect the food system.

Some insights that can be gained from a systems perspective on food include:
• The world produces sufficient food to feed all 7 billion people, but food is lost to storage inadequacies and food is distributed to those who have money to buy it, leaving over 900 million people with insufficient money malnourished.
• United States energy policy that subsidizes producing ethanol from corn increases the cost of corn used for food around the world.
• Agricultural policies in the United States and the European Union that subsidize farming among their citizens prevent farmers from countries that cannot subsidize agriculture from competing in the global market.
• Conflicts within and between nations are major sources of food shortages that can lead to malnutrition.

Questions to Ask about Global Issues from a Systems Perspective
• What are key systems (integrated wholes) related to this issue?
• What are the inputs to each of these key systems? What are the outputs? What happens within the systems to transform the inputs to outputs?
• For each system, what are some of the component parts or subsystems? What are important aspects of the environment for these systems?
• How do all of the various systems, component parts, and aspects of the environment affect one another? How are they interrelated?
• How is this issue related to other global issues? How does this issue affect other global issues? How is this issue affected by other global issues?
• How is the United States affected by this issue, revolution or trend? How is your local community affected by this issue, revolution or trend? How are you as an individual affected by this issue, revolution or trend?

Note: These questions are more applicable to some global issues and trends than others. The questions may be adapted to better suit some issues and trends.

Denny Falk (University of Minnesota, Duluth), Steve Elliott-Gower (Georgia College), and some of the other Global Engagement Scholars use the Global Village exercise in their global challenges courses. The exercise scales down world population to your class, making your class representative of world demographics in terms of country, gender, age, and the urban/rural divide. Students are assigned "global villagers" from the top of the list down; that is, if you have 20 students in your class, assign the top 20 global villagers; if you have 30 in your class, assign the top 30. You can have your students approach global challenges from the perspective of their global villager in class and/or in blogs or other online forums.

Below is the information that Steve Elliott-Gower provides students in his Seven Revolutions freshmen seminar:

Global Village Activity

One way to gain a valuable perspective on our world is to examine how people in different countries are affected by global issues and trends. The activity described below provides an opportunity for class members to simulate being a "global village" that is in many ways representative of the seven billion people who currently inhabit the earth.

This activity originates in several efforts to describe the world as a global village of 100 people. This idea suggests that it is very difficult to comprehend data about the world's population as a whole, but if one created a global village of 100 people, the numbers would make more sense. For example, if the world were a global village of 100 people, about 19 of those people would live in China, 14 of them would live in Africa, and about 4 would live in the United States. About 14 would be malnourished and about 15 would live on $1.25 a day or less.

We will review the Miniature Earth video (*http://www.miniature-earth.com/*) in class before you introduce us to your global villager. The concept behind this video was the foundation for the Global Village activity.

Each student will take on the role of one individual from a specific country, but will in turn represent millions of people who have a similar background. The activity is set up for the class to have a proportionate number of global villagers from the various continents and countries of the world, with half of the class being female and half male, and ages and residence (urban or rural) also being representative. Meet your global villager here: gvassignmentss12.xlsx *(see Global Village Exercise)*.

Once you have your role, use various Internet resources to more fully describe the characteristics of the person you will be in the global village. The characteristics that you should describe include the following; (you'll see that some of these characteristics, such as age and sex, are already given):

1. Name
2. Age
3. Sex
4. City and country of residence
5. Ethnicity (majority ethnic group)
6. Religion (majority religion)
7. Life expectancy
8. Language (majority)
9. Annual income (purchasing power parity)
10. Occupation (less opportunities in rural areas)
11. Primary technological mode of communication
12. Primary mode of transportation
13. Other relevant information

Create a blog and identify the basic characteristics of your global villager. Once you have described these basic characteristics, you can think about how global issues such as demographic change, natural resource issues, technological innovation, economic integration (or lack thereof), conflict, and so forth might affect the live of your global villager both now and in the future. List your sources of information at the end of this first blog entry.

Global Village Exercise

	Country	Sex	Age	Area/City	Latitude	Longitude	Student
1	China	Female	32	rural	30° N	105° E	
2	India	Male	6	rural	20° N	75° E	
3	USA	Female	73	Alabama	32° N	85° W	
4	Indonesia	Female	1	Jakarta	6° S	106° E	
5	Brazil	Male	23	rural	10° S	60° W	
6	China	Male	5	Shanghai	31° N	119° E	
7	Pakistan	Male	28	rural	28° N	68° E	
8	India	Female	15	Mumbai	21° N	70° E	
9	Germany	Male	60	Hamburg	53° N	9° E	
10	Russia	Female	25	rural	60° N	60° E	
11	China	Female	44	rural	40° N	85° E	
12	Nigeria	Female	4	Lagos	6° N	3° E	
13	Japan	Male	75	Tokyo	35° N	139° E	
14	Bangladesh	Female	31	rural	23° N	90° E	
15	India	Female	48	rural	17° N	82° E	
16	China	Male	17	Beijing	39° N	116° E	
17	South Africa	Male	12	township	30° S	20° E	
18	Mexico	Female	55	Mexico city	19° N	99° W	
19	Uganda	Male	26	rural	4° N	34° E	

	Country	Sex	Age	Area/City	Latitude	Longitude	Student
20	Australia	Male	35	Sydney	33° S	151° E	
21	China	Male	52	rural	44° N	85° E	
22	India	Female	33	rural	15° N	76° E	
23	Iraq	Female	3	Anbar Province	32° N	41° E	
24	Argentina	Male	18	rural	20° S	68° W	
25	Philippines	Female	50	Manila	14° N	120° E	
26	China	Female	23	rural	45 °	88° E	
27	Afghanistan	Female	32	rural	37° N	64° E	
28	Vietnam	Male	10	Hanoi	21° N	105° E	
29	India	Male	60	rural	20° N	82° E	
30	Egypt	Female	16	Cairo	30° N	31° E	
31	China	Male	72	rural	41° N	105° E	
32	United States	Male	11	New Orleans	30° N	90° W	
33	Ethiopia	Female	54	rural	12° N	39° E	
34	Turkey	Male	37	Istanbul	41° N	29° E	
35	India	Female	22	Bangalore	13° N	77° E	
36	China	Female	37	rural	40° N	111° E	
37	Iran	Female	9	rural	33° N	52° E	
38	Indonesia	Male	27	rural	3° S	121° E	
39	Thailand	Male	6	Bangkok	14° N	100° E	
40	Congo	Female	41	Kinshasa	4° S	15° E	
41	China	Male	8	rural	37° N	78° E	
42	India	Male	71	rural	23° N	85° E	
43	France	Male	19	Paris	49° N	2° E	
44	United Kingdom	Female	7	rural	52° N	0	
45	Italy	Male	81	Venice	45° N	12° E	
46	China	Female	41	rural	39° N	101° E	
47	Canada	Female	22	Montreal	45° N	73° W	
48	India	Female	11	rural	25° N	71° E	
49	South Korea	Female	29	Seoul	37° N	127 ° E	
50	Burma	Male	64	rural	22° N	96° E	
51	China	Male	12	rural	38° N	77° E	
52	Ukraine	Female	65	Kiev	50 ° N	30° E	
53	Pakistan	Female	24	Karachi	24° N	67 ° E	
54	India	Male	28	rural	22° N	78 ° E	
55	Columbia	Female	5	Medellin	6° N	75° W	
56	China	Female	57	Guangzhou	23° N	113° E	
57	Russia	Male	17	Moscow	55° N	37° E	
58	Brazil	Female	14	rural	0	58° W	
59	Sudan	Female	34	Darfur	15° N	24° E	

	Country	Sex	Age	Area/City	Latitude	Longitude	Student
60	India	Female	3	Bangaloire	12° N	77° E	
61	China	Male	24	rural	37° N	95° E	
62	Spain	Male	68	Barcelona	41° N	2° E	
63	Indonesia	Female	51	rural	6° S	111° E	
64	Poland	Female	18	Gdansk	54° N	18° E	
65	India	Male	33	rural	26° N	72° E	
66	China	Female	35	Taipei	25° N	121° E	
67	Tanzania	Male	8	rural	8° S	35° E	
68	United States	Male	26	Flint, Michigan	43° N	83° W	
69	Japan	Female	15	Yokohama	35° N	139° E	
70	Kenya	Female	46	rural	1° N	38° E	
71	China	Male	2	rural	46° N	122° E	
72	India	Female	55	rural	20° N	80° E	
73	Saudi Arabia	Female	16	Jeddah	21° N	39° E	
74	Bangladesh	Male	14	Dhaka	23° N	90° E	
75	Morocco	Male	57	rural	33° N	4° W	
76	China	Female	42	Tianjin	39° N	117° E	
77	Nepal	Female	1	rural	28° N	83° E	
78	India	Male	18	Kolkata	22° N	88° E	
79	United States	Female	29	New York City	40° N	74° W	
80	Madagascar	Female	51	rural	17° S	45° E	
81	China	Male	14	rural	26° N	109° E	
82	United States	Female	22	Phoenix	33° N	112° W	
83	Venezuela	Male	35	Caracas	10° N	66° W	
84	India	Female	45	rural	19° N	73° E	
85	Nigeria	Male	4	rural	18° N	10° E	
86	China	Female	54	Hong Kong	22° N	114° E	
87	Uzbekistan	Male	27	rural	42° N	63° E	
88	Indonesia	Male	8	rural	1° S	121° E	
89	Romania	Female	59	Bucharest	44° N	26° E	
90	India	Male	13	rural	26° N	79° E	
91	China	Male	27	rural	29° N	119° E	
92	Cameroon	Female	2	Yaounde	3° N	11° E	
93	Brazil	Male	39	rural	10° S	60° W	
94	North Korea	Male	46	Pyongyand	39° N	125° E	
95	India	Female	25	rural	20° N	88° E	
96	China	Female	61	Chongqing	29° N	106° E	
97	Mexico	Male	10	rural	20° N	88° W	
98	Netherlands	Female	78	Amsterdam	52° N	4° E	
99	Zimbabwe	Male	19	rural	19° S	30° E	
100	Malaysia	Female	4	rural	3° N	102° E	

Students are encouraged to vision a just world in the thinking globally, acting locally unit in the University of Minnesota Duluth's SW 1210 Global Issues and SW 1212 Global Issues Honors Seminar courses. After brainstorming and recording characteristics of a just world, students are asked to vote for 3-5 characteristics that would be most desirable in a just, or preferred future, world.

Visioning a Just World

A political philosopher named John Rawls developed an understanding of social justice suggesting that justice would be present in the world when any individual in the world could trade places with any other individual in the world and the first individual would feel satisfied with that switch. Justice is obviously not currently present, because few white, middle- or upper-class males in the United States would feel okay about trading with a woman in India who was living on two dollars a day or less.

Imagine for a few minutes that you have died temporarily, but that you come back to Earth in 2030 and randomly take the position of one of the 7-9 billion people living at that time. Since you will have an equal chance to become any one of the persons who are then occupying the Earth, you probably will have a greater chance of coming back as a woman living in India than a white, middle-class, American male.

Now imagine that you are floating around the world at a height of about 20 miles just before you will take your new identity. You can see all of the people, things and activities that are on the surface of the earth. As you look down on the world 2030, what do you see that pleases you knowing that you could become any of the 7-9 billion people that are living on the earth?

• Try to describe things or activities that you actually can see in the positive, not negative.

• You could focus on the positive resolution of global issues, such as population; food and hunger; environment; development/political economy; war, peace and security; and human rights.

• You could focus on the presence of basic needs being met, such as physiological needs (water, food, shelter, clothing, health care); safety and security needs; belongingness; respect of self and respect from others; and growth.

List what you see that pleases you in the Wiki labeled "Visioning a Just World."

Students are asked to independently complete the "Political Activity Scale" in the thinking globally, acting locally unit in the University of Minnesota Duluth's SW 1210 Global Issues and SW 1212 Global Issues Honors Seminar courses. Students then examine their score in relation to the anonymous scores of their classmates and forecast the score that they believe they would obtain four years in the future.

Political Activity Scale

There are a number of activities that people can undertake to affect the political process. The scale below provides a list of political activities and gives points to generate an overall rating of political action. Please consider only the past four years in making your ratings. Enter a number in the right hand column by multiplying the number of activities times the points for each activity.

Political Activity	# of Times	Points	Total	Maximum Possible
Vote in an election		5		20
Attend a party caucus		5		10
Email (or send a letter) to an elected **federal** representative about your views on an issue*		5		10
Email (or send a letter) to an elected **state** representative about your views on an issue*		5		10
Email (or send a letter) to an elected **local** representative about your views on an issue*		5		10
Write a letter to the editor in a newspaper		5		10
Attend a rally for a political candidate		5		10
Attend a rally for a political cause		5		10
Engage in other political activity		5		10
*Give points for making any contact with an elected official				100

Dr. Denny Falk uses this handout in his SW 1212 Global Issues Honors Seminar.

Organizations Addressing Global Issues

One student will present information on one organization that addresses global issues in the topic area of interest. The information will be presented in class on April 26. The two-minute presentation should include:

• The name of the organization
• Purpose of the organization (including which global issues it is working to address)
• Examples of activities in which the organization engages
• Evaluation of the value of the organization
• Other information you believe is relevant

Below is a list of organizations, but you are welcome to present one not on the list if you can demonstrate that it works in multiple countries.

|	
Population Population Connection Population Action International Population Institute	**Food and Hunger** Bread for the World Food First The Hunger Site The Heifer Project
Environment Sierra Club World Wildlife Fund Greenpeace Friends of the Earth	**Development** Tools for Self-Reliance CorpWatch.org World Development Movement
Peace International Crisis Group Peace Action Nonviolence.org International Action Center	**Human Rights** Amnesty International Human Rights Watch Human Rights Internet
Economic Opportunities Accion Ten Thousand Villages Grameen Foundation	**Education** Central Asia Institute Academy for Educational Development

You can obtain information on any of these organizations by searching "Google" or another search engine of your choice. You can get evaluations of some charities at *http://www.charitynavigator.org/* or from the Better Business Bureau at *http://www. bbb.org/us/Charity-Reviews/*

Here are some handouts used by Nathan Phelps at Western Kentucky University in his Global Challenges courses.

Using Lenses to Evaluate the Global Challenges

Lenses are really just different frames of reference through which, or by which, to evaluate the trends. They are helpful at different points in the course and both in-class and out-of-class exercises can be developed around them. The sheet with blank bubbles can be used to have students brainstorm concepts, ideas and developments and see how they are connected. The sheet with the labeled bubbles can be used to systematically explore how all of the trends connect together by looking at them through a single lens. (See "lens" ideas below.) It is important to note that the lines connecting the bubbles represent a reciprocal relationship: the lens may shape, and be shaped by, each of the trends. Having students explore these dynamics can be particularly powerful. The bubble analyses can be useful ways to conceptualize relationships that then become the basis for analytical writing assignments.

1. The labeled and unlabeled bubble sheets: Write the analytical lens in the middle. This is a way to consider topics/areas that are not represented by the model. It is also a way to critique the model itself. For example, you can explore disciplines like art, psychology or philosophy—or concepts like religion, gender, class, race or ethics.

2. Students can put their proposed vocational or avocational interests in the middle and examine the trends in terms of their impact on these fields or interests: public health, journalism, entrepreneurship, education, law enforcement, entertainment, sports, travel, recreation, parenting, music, etc.

3., These bubbles can also be used to explore the trends from different geographical, ideological or chronological perspectives. For example, if you are doing the global village exercise, students can put their global villager in the middle.
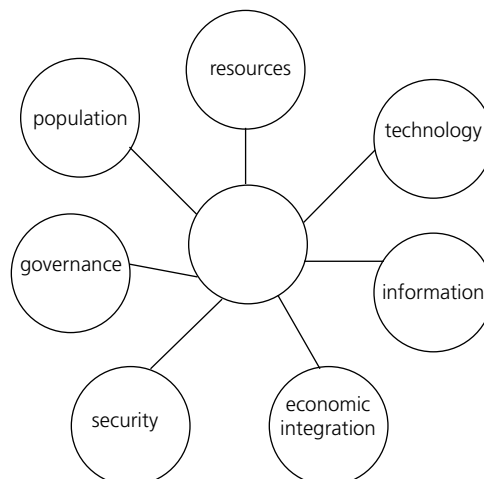
The Road Ahead Resources Quiz

Student Name: _____

1. Please define **one** of the following terms and discuss **two** implications of this
    practice:
    • Bio-fuels
    • Mono-cropping

The Road Ahead, Quiz Two

Student Name: _____

Below, please write ONE question for EACH of the THREE readings assigned
for today. Each of the questions should be specific to an individual essay and
demonstrate an understanding of important issues or topics unique to that article
(i.e., no vague statements like "identify the author's thesis or point of view" that
could be applied to any article).

1.
2.
3.

Write one question below that synthesizes all three articles. Again, make it specific
to THESE THREE articles.

1.

[space for answer]

The World in 2030, Final Paper Assignment

For the final paper assignment, I would like you to conduct your own research on some aspect of the "Seven Revolutions" model that has framed our exploration of the future. Depending on which option you select, you may look at one or two revolutions in more detail, or you may choose to look at all seven revolutions through a single "lens" or frame of reference. *Your paper should reflect specific empirical data (facts) about these trends.* The final product should be a paper of approximately 15 pages (typed, double-spaced, with complete citations). *This paper will be due at noon on December 9, 2011.* Prior to turning in the final paper, you will be presenting your work to the class and leading a discussion on your research topic.

Whether you choose to look at all of the revolutions or just one or two, please choose between one of the following three "focus" options:

(a) You may look at the first, second and third order implications of change over time. Using the best data we have available, examine the future by looking at the possible secondary and tertiary effects of specific trends or developments within any of the revolutions.

(b) You may look at how the seven revolutions may shape your own professional and personal life in the future. If you choose this option, you must make reference to some dimension *of all seven* of the revolutions in your paper.

(c) You may look at the issue of efficacy—how human action may be shaped by, and shape the future. In particular, you should examine what people—alone or in groups—can or should "do" to most effectively bring about a desirable future. Here you would want to examine probable and preferable futures and identify specific actions that you would advocate to help steer a course for a better future. Be specific.

I hope that this final paper gives you a chance to reflect in a holistic way on some aspect of this material and that you learn something useful in the process. If you have any questions or concerns about how to proceed with this project, please stop by (GCC 120), give me a call (745-3447) or send me an email (nathan.phelps@wku.edu).

The following survey has been used by several Global Engagement Scholars before and after each course, substituting the word "post" for "pre" when administered at the end of the course. Martin Shapiro collected and analyzed the data.

Class Number   **Class Name**   **Semester/Year**

Pre-Class Survey (not for grade)
Please respond to the items below by circling one number after each statement. Circling a "1" indicates that you strongly disagree with the item, while "5" indicates that you strongly agree. Please circle the number that most closely reflects your opinion.

Strongly Disagree	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**
(1)	(2)	(3)	(4)	(5)

1. I know quite a lot about the major global issues shaping the world today.
          1   2   3   4   5

2. I know quite a lot about the major global issues that will likely face the world in 2050.
          1   2   3   4   5

3. I feel confident in forecasting what the world will be like in 2050.
          1   2   3   4   5

4. I am committed to civic involvement (e.g., voting, public policy issues, contacting local officials).
          1   2   3   4   5

5. I am very knowledgeable about how to get involved in civic life.
          1   2   3   4   5

6. I believe my actions as an individual citizen can make a difference in shaping the future.
          1   2   3   4   5

7. I am optimistic about the future.
          1   2   3   4   5

8. It is important to temporarily withhold judgment when exposed to new information.
          1   2   3   4   5

9. I am curious about what happens in other parts of the world.
          1   2   3   4   5

10. I feel a connection to people in different parts of the world.
          1   2   3   4   5

11. Events happening in other parts of the world affect my daily life.
          1   2   3   4   5

12. I read information about other parts of the world regularly.
          1   2   3   4   5

13. The world is so complex that it's too difficult to understand the news.
          1   2   3   4   5

14. Please rate each of the following issues in terms of how important you think they are. On the left, number the items as you see their importance today; on the right, indicate how important you think these issues will be in the future (the year 2050).

Background Information

15. Gender (please check one):   ❏ Male   ❏ Female

16. Year in School (please check one):   ❏ First Year   ❏ Sophomore   ❏ Junior   ❏ Senior

17. Please indicate your area of study (please check one):
    ❏ Social Science
    ❏ Humanities/Fine Arts
    ❏ Natural Science
    ❏ Business
    ❏ Education
    ❏ Health Science
    ❏ Other (please specify):

Assessment

In 2008, several members of the Global Challenges Committee worked together to create a short questionnaire that could be given to students enrolled in a course built around the Global Challenges framework. The surveys were given at the beginning and end of a semester to evaluate attitudes and concerns about the global community and the challenges facing their future. These surveys were given in a variety of courses at different institutions and different levels in a student's academic career. A total of 519 surveys were collected before the semester began (pre) and 392 surveys were collected at the end of the semester (post). This is a small representation of those students that have taken a course taught around the theme of global challenges. Table 1 shows the distribution of universities involved in this survey.

Table 1. Pre- and Post-Semester Surveys by Institutions		
	Pre	**Post**
CSu Fresno	139	129
Fort Hays State Univerityy	13	13
Georgia College	41	38
Kennesaw State University	196	99
University of Minnesota Duluth	90	79
Western Kentucky University	40	34

In addition to some demographic information, the following 12 questions were posed:

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
(1)	(2)	(3)	(4)	(5)

1. I know quite a lot about the main issues facing the world today.
2. I know quite a lot about the main issues that will likely face the world in 2025.
3. I feel confident in forecasting what the world will be like in 2025.
4. I am committed to civic involvement (e.g., voting, public policy issues, contacting local officials).
5. I am very knowledgeable about how to get involved in civic life.
6. I believe my actions as an individual citizen can make a difference in shaping the future.
7. I am optimistic about the future.
8. It is important to temporarily withhold judgment when exposed to new information.
9. I am curious about what happens in other parts of the world.
10. I feel a connection to people in different parts of the world.
11. Events happening in other parts of the world affect my daily life.
12. I read information about other parts of the world regularly.

When the survey was designed, it was intended for higher scores to be taken as someone who evaluates themselves as having greater global awareness, interest about the changing world and confidence in acting to influence the world around them in a positive way. A repeated measure ANOVA was performed with the

questions as the within subjects factor, and gender, year in school and pre- and post-semester responses as the between subject factors. Where assumption of sphericity cannot be assumed as measured by a significant Mauchly's test, a Greenhouse-Geisser correction was employed. The institution was not used as a factor because they would be confounded with academic standing, as some institutes only conducted surveys from freshman or seniors.

Figure 1 shows the pre- and post-semester scores across all participants for each of the 12 questions. It is clear that there is an overall difference between pre- and post-semester responses, $F(1, 542) = 60.98$, $P < 0.001$. But what is also clear is that this improvement depended on the questions as indicated by a question by pre-/post-semester interaction, $F(9.08, 4919.42) = 18.77$, $p < 0.001$. This interaction allowed for an assessment to see which questions showed difference between pre- and post-semester evaluation using a series of one-way ANOVAs. The only questions where there was not a significant improvement of scores were question 7 concerning optimism about the future and question 9 concerning curiosity about different parts of the world. But as can be seen in Figure 1, questions 7 and 9 both started with relatively high scores at the pre-semester survey, indicating that students enter the class with a relatively high level of optimism and curiosity about these topics. The

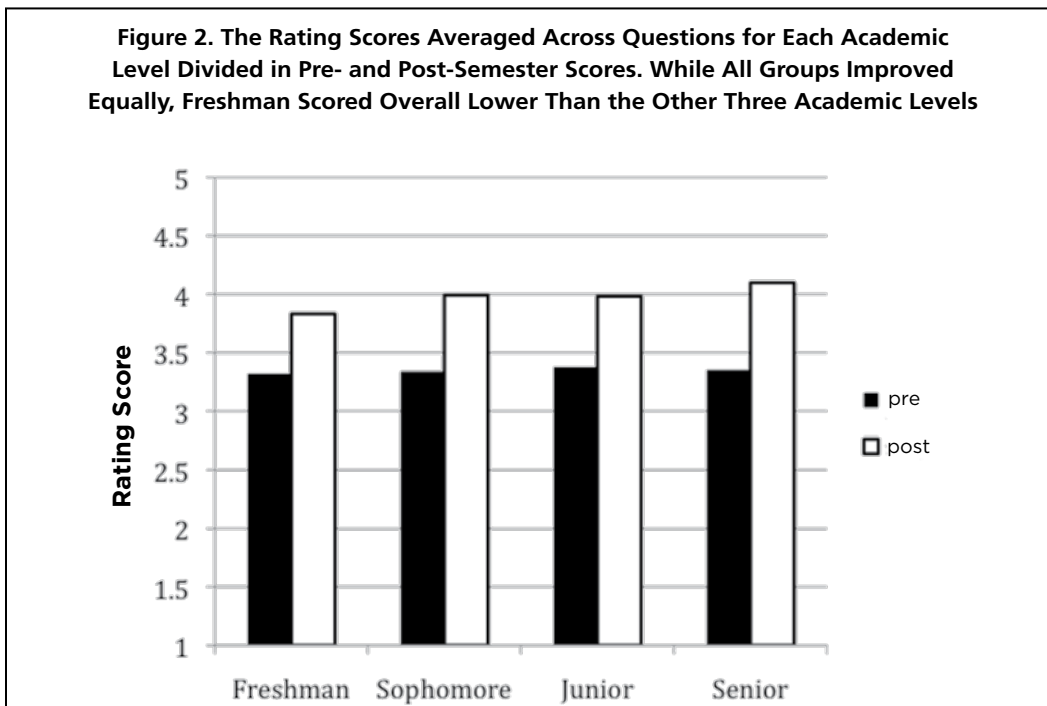Figure 1. The Pre- and Post-Semester Responses for Each Question Averaged Across Universities
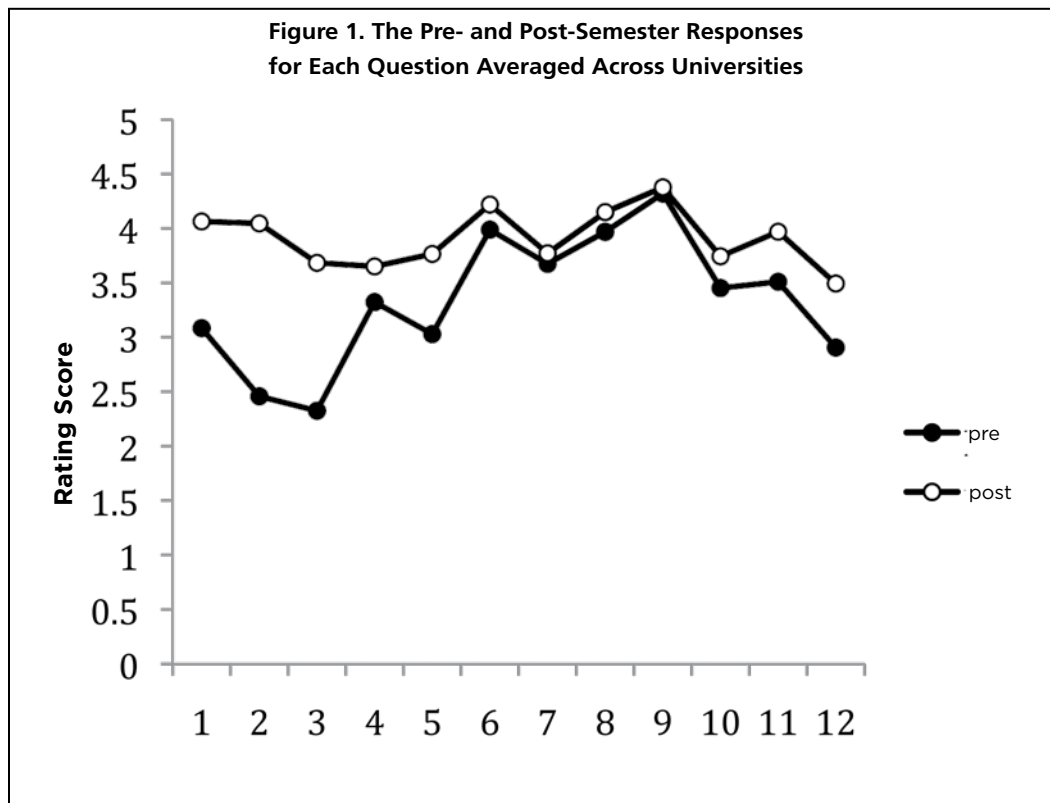
improvement on the other questions gives a strong indication that students view themselves as gaining a great deal of information (questions 1, 2 and 3), that they feel more engaged and empowered about involving themselves in local and global issues (questions 4, 5, 6), and that they feel more connected and see the importance

of being connected to people around the world (questions 10, 11 and 12) following a course taught around a global challenges theme.

Table 2 shows the distribution of freshman, sophomores, juniors and seniors that have taken this survey. Figure 2 shows the ratings scores, pre- and post-semester, averaged across the different academic levels. We did find an overall effect of academic years, $F(3, 542) = 3.31$, $p = 0.02$, but there was not year by pre-post semester interaction indicating that all groups improved equally. With a series of follow-up comparisons, the overall scores of the freshman were lower than sophomores $t(698) = 2.19$, $p = 0.029$, juniors, $t(671) = 2.72$, $p = 0.007$ and seniors $t(700) = 3.21$, $p = 0.001$. Sophomores, juniors and seniors did not differ from each other.

A number of instructors incorporate various methods to look at learning outcomes including exams, papers, discussions and e-Portfolios. Some are even beginning to create pre- and post-semester assessments that address specific facts relating to global issues. This survey was designed to simply look at student's self-assessment

Table 2. The Number of Students Taking the Survey in Each Academic Year		
	Pre	**Post**
Freshman	348	234
Sophomores	63	55
Juniors	44	97
Senior	64	55

Figure 2. The Rating Scores Averaged Across Questions for Each Academic Level Divided in Pre- and Post-Semester Scores. While All Groups Improved Equally, Freshman Scored Overall Lower Than the Other Three Academic Levels

and reflections on their attitudes toward important global trends and their role in making a difference to enact positive change. It is clear from these results that they are showing strong improvement on many of the important qualities we want to see in students taking course with this material.

CHAPTER 5

Teaching Resources

Courses based on the Global Challenges format are unique in that they tend to focus on current ideas about the revolutionary changes facing the world in the coming years. This requires instructors to have access to the best up-to-date information. In addition, these courses also cover a wide range of topics that span many academic disciplines. This section provides recommendations from instructors who have taught Global Challenges courses including: preparatory books, magazines, DVDs and numerous online resources. Descriptions of these resourcs come from he websites cited, from online retailers such a Amazon® and other Internet sources.

Online Resources

The web is a great source for videos, articles, maps and statistics. We highly recommend that you speak with your librarian for information about how to bring these resources into your class. For example, your library may have an online subscription to *National Geographic,* and an instructor could simply link students to this article directly through the library.

The following is a list of websites that have been useful. This is by no means a complete list, but these sites have been used often. This is followed by some specific videos, radio programs and articles found on these sites.

Global Statistics
- **CIA: The World Fact Book**
  https://www.cia.gov/library/publications/the-world-factbook/index.html
  Great country by country statistics and maps.

- **United Nations**
  http://esa.un.org/unpp/index.asp
  Create your own graphs using statistics provided.

- **World Health Organization**
  http://www.who.int/research/en/

- **Gapminder: For a Fact Based Worldview**
  Gapminder.org

Maps
- **Worldmapper**
  www.worldmapper.org/
  Provides images of the globe based on statistical information. For example, looking at a global map based on malaria, Africa is made disproportionly large and the United State is only a sliver.

- **CIA Regional Maps**
  https://www.cia.gov/library/publications/the-world-factbook/docs/refmaps.html

Online Videos

See below for specific videos that can be shown in-class or watched at home:

- **YouTube**
  www.youtube.com

- **TED: Ideas worth spreading**
  www.ted.com
  15-20 minutes talks by world experts.

- **Snagfilms**
  www.snagfilms.com
  Selected documentaries available in their entirety.

Online Radio Programs

- **This American Life**
  www.thisamericanlife.org

- **Radio Lab**
  www.radiolab.org

- **The World**
  www.theworld.org/

PowerPoint Lectures

- **Slideshare**
  www.slideshare.net

- **Google Advanced Search,** filetype ppt: *www.google.com/advanced_search.* You
  can also just search google.com and add *(filetype:ppt)* after a subject word.
  For example, if you wanted to look for a PowerPoint talk on ethanol, just type
  (ethanol filetype:ppt).

Interactive

- **World in the Balance (NOVA)**
  www.pbs.org/wgbh/nova/worldbalance/

- **NASA Global Climate Change**
  climate.jpl.nasa.gov/

- **The Nature Conservancy**
  www.nature.org/initiatives/climatechange/strategies/art21202.html

Other Valuable Online Resources

- ***The New York Times***
  www.nytimes.com/

- **Al Jazeera**
  english.aljazeera.net/

- ***The Washington Post***
  www.washingtonpost.com/

- **The Economist**
  www.economist.com/

- **Google News**
  news.google.com/

- **CSIS Global Strategies Institute Blog**
  gsi.csis.org/index.php

- ***The New Atlantis***
  www.thenewatlantis.com/

- ***The Better World Handbook: Small Changes that Make a Big Difference***
  www.betterworldhandbook.com/2nd/

- ***The Globalist***
  www.theglobalist.com

Specific Online Video and Audio Programs

Because Global Engagement deals with current issues and future trends, it is important to continuously bring up-to-date information into classes. There are a number of great online resources for videos and radio programs. Some programs work well as out-of class assignments, while others are short clips that can add to lectures.

TED Talks

The annual TED (technology, entertainment, design) conference brings together the world's most fascinating thinkers, doers and leaders in their fields. They are challenged to give the talk of their lives in under 18 minutes. These are often very dynamic speakers who emphasize innovation, insight and commentaries on the future. These talks have been used effectively in class or as assignments. The descriptions are taken from the TED website.

Jonathan Foley: The Other Inconvenient Truth (2012)

http://www.ted.com/talks/jonathan_foley_the_other_inconvenient_truth.html
- Running Time: 17.42 minutes
- Description: A skyrocketing demand for food means that agriculture has become the largest driver of climate change, biodiversity loss and environmental destruction. Jonathan Foley shows why we need to begin "terraculture"—farming for the whole planet.
- Global Challenges: Population, Resources (Food, Climate)

Melinda Gates: Let's Put Birth Control Back on the Agenda (2012)

http://www.ted.com/talks/melinda_gates_let_s_put_birth_control_back_on_the_ agenda.html
- Running Time: 25.25 minutes
- Description: Contraception. The topic has become controversial in recent years. But should it be? Melinda Gates believes that many of the world's social change issues depend on ensuring that women are able to control their rate of having kids.
- Global Challenge: Population

Hans Rosling: Religions and Babies (2012)

http://www.ted.com/talks/hans_rosling_religions_and_babies.html
- Running Time: 13.20 minutes
- Description: Hans Rosling had a question: Do some religions have a higher birth rate than others – and how does this affect global population growth?
- Global Challenge: Population

Pavan Sukhdev: Put a Value on Nature (2011)

www.ted.com/talks/pavan_sukhdev_what_s_the_price_of_nature.html
- Running Time: 16.31 minutes
- Description: Every day we use materials from the earth without thinking, for free. But what if we had to pay for their true value: Would it make us more careful about what we use and what we waste? Think of Pavan Sukhdev as nature's banker—assessing the value of the Earth's assets. Eye-opening charts will make you think differently about the cost of air, water, trees . . .
- Global Challenge: Resources

Eli Pariser: Beware Online "Filter Bubbles" (2011)

www.ted.com/talks/eli_pariser_beware_online_filter_bubbles.html
- Running Time: 9:05 minutes
- Description: As web companies strive to tailor their services (including news and search results) to our personal tastes, there's a dangerous unintended consequence: We get trapped in a "filter bubble" and don't get exposed to information that could challenge or broaden our worldview. Eli Pariser argues that this will ultimately prove to be bad for us and bad for democracy.
- Global Challenge: Information

Richard Wilkinson: How Economic Inequality Harms Societies (2011)

www.ted.com/talks/lang/en/richard_wilkinson.html
- Running Time: 16:55 minutes
- Description: We instinctively feel that societies with huge income gaps are somehow going wrong. Richard Wilkinson charts the hard data on economic inequality, and shows what gets worse when rich and poor are too far apart: real effects on health, lifespan and even basic values such as trust.
- Global Challenges: Economic Integration, Population

Peter Eigen: How to Expose the Corrupt (2010)

www.ted.com/talks/lang/eng/peter_eigen_how_to_expose_the_corrupt.html
- Running Time: 16 minutes
- Description: Some of the world's most baffling social problems can be traced to systematic, pervasive government corruption, hand-in-glove with global companies. Eigen describes the counter-attack led by his organization, Transparency International.
- Global Challenge: Governance

Rob Hopkins: Transition to a World Without Oil (2010)

www.ted.com/talks/lang/eng/rob_hopkins_transition_to_a_world_without_oil.html
- Running Time: 17 minutes
- Description: The oil our world depends on is steadily running out. Hopkins proposes a unique solution to this problem—the Transition response, where we prepare ourselves for life without oil and sacrifice our luxuries to build systems and communities that are completely independent of fossil fuels.
- Global Challenge: Resources (Energy)

Richard Sears: Planning for the End of Oil (2010)

www.ted.com/talks/lang/eng/richard_sears_planning_for_the_end_of_oil.html
- Running Time: 7 minutes
- Description: Sears, an expert in developing new energy resources, talks about our inevitable and necessary move away from oil. Toward … what?
- Global Challenges: Resources, Technology

Ethan Zuckerman: Listening to Global Voices (2010)

www.ted.com/talks/lang/en/ethan_zuckerman.html

- Running Time: 19:45 minutes
- Description: Sure, the web connects the globe, but most of us end up hearing mainly from people just like ourselves. Blogger and technologist Ethan Zuckerman wants to help share the stories of the whole wide world. He talks about clever strategies to open up your Twitter world and read the news in languages you don't even know.
- Global Challenges: Information, Population

Stewart Brand Proclaims 4 Environmental 'Heresies' (2009)

www.ted.com/talks/stewart_brand_proclaims_4_environmental_heresies.html

- Running Time: 16.42 minutes
- Description: The man who helped usher in the environmental movement in the 1960s and '70s has been rethinking his positions on cities, nuclear power, genetic modification and geo-engineering. This talk at the U.S. State Department is a foretaste of his major new book, sure to provoke widespread debate.
- Global Challenges: Population, Economic Integration, Resources

Paul Collier: New Rules for Rebuilding a Broken Nation (2009)

www.ted.com/talks/paul_collier_s_new_rules_for_rebuilding_a_broken_nation.html

- Running Time: 16 minutes
- Description: Long conflict can wreck a country, leaving behind poverty and chaos. But what's the right way to help war-torn countries rebuild? Paul Collier explains the problems with current post-conflict aid plans, and suggests three ideas for a better approach.
- Global Challenges: Security, Governance

Parag Khanna: The Future of Countries (2009)

www.ted.com/talks/parag_khanna_maps_the_future_of_countries.html

- Running Time: 19 minutes
- Description: Many people think the lines on the map no longer matter, but Parag Khanna says they do. Using maps of the past and present, he explains the root causes of border conflicts worldwide and proposes simple solutions for each.
- Global Challenges: Economic Integration, Security, Governance

Loretta Napoleoni: The Intricate Economics of Terrorism (2009)

www.ted.com/talks/lang/eng/loretta_napoleoni_the_intricate_economics_of_ terrorism.html

- Running Time: 16 minutes
- Description: A behind-the-scenes look at terrorism's complex economics, revealing a surprising connection between money laundering and the U.S. Patriot Act.
- Global Challenge: Security

Paul Romer: Charter Cities (2009)

www.ted.com/talks/paul_romer.html
- Running Time: 18 minutes
- Description: How can a struggling country break out of poverty if it's trapped in a system of bad rules? Economist Paul Romer unveils a bold idea: "charter cities," city-scale administrative zones governed by a coalition of nations. Could Guantánamo Bay become the next Hong Kong?
- Global Challenges: Economic Integration, Governance

P.W. Singer: Military Robots and the Future of War (2009)

www.ted.com/talks/pw_singer_on_robots_of_war.html
- Running Time: 18.31 minutes
- Description: In this powerful talk, P.W. Singer shows how the widespread use of robots in war is changing the realities of combat. He shows us scenarios straight out of science fiction—that now may not be so fictitious.
- Global Challenges: Security, Technology

Carolyn Steel: How Food Shapes our Cities (2009)

www.ted.com/talks/lang/eng/carolyn_steel_how_food_shapes_our_cities.html
- Running Time: 16 minutes
- Description: Every day, in a city the size of London, 30 million meals are served. But where does all the food come from? Architect Carolyn Steel discusses the daily miracle of feeding a city, and shows how ancient food routes shaped the modern world.
- Global Challenges: Population (Urbanization), Resources (Food)

Paul Collier: The "bottom billion" (2008)

www.ted.com/talks/lang/eng/paul_collier_shares_4_ways_to_help_the_bottom_billion.html
- Running Time: 17 minutes
- Description: Around the world right now, one billion people are trapped in poor or failing countries. How can we help them? Economist Paul Collier lays out a bold, compassionate plan for closing the gap between rich and poor.
- Global Challenge: Economic Integration (Poverty)

Christopher deCharms: Looking Inside the Brain in Real Time (2008)

www.ted.com/talks/christopher_decharms_scans_the_brain_in_real_time.html
- Running Time: 4:03
- Description: This talk gives a short description about how Function MRI and neuroimaging techniques will soon enable us to control a greater part of our brain and could replace, in part, the need for psychotherapy and drugs for depression and pain. Has a good "future" feel to it.
- Global Challenge: Technology

Al Gore: New Thinking on the Climate Crisis (2008)

www.ted.com/index.php/talks/al_gore_on_averting_climate_crisis.html

• Running Time: 27.54 minutes
• Description: In this talk, Al Gore updates his thinking on laws, policies and global efforts necessary for environmental challenges including global climate change, acid rain, etc.
• Global Challenge: Resources (Climate)

Craig Venter: On the Verge of Creating Synthetic Life (2008)

www.ted.com/index.php/talks/craig_venter_is_on_the_verge_of_creating_synthetic_life.html

• Running Time: 15:54
• Description: Craig Venter discusses creating new organisms with bioengineering. Altered and new organisms, like bacteria, may serve an important role in the future of medicine and energy.
• Global Challenge: Technology

Kevin Kelly: Predicting the Next 5,000 Days of the Web (2007)

www.ted.com/index.php/talks/kevin_kelly_on_the_next_5_000_days_of_the_web.html

• Running Time: 19.34
• Description: Kevin Kelly describes what the Internet is today and predicts where it is going. He begins with interesting statistics about how the Internet is used today; he then makes some predictions of how the Internet will change in the next 10, 20 and 30 years.
• Global Challenges: Technology, Information

E.O. Wilson: Help Build the Encyclopedia of Life (2007)

www.ted.com/index.php/talks/e_o_wilson_on_saving_life_on_earth.html

• Running Time: 23 minutes
• Description: E.O. Wilson discusses biodiversity and the need to think about and protect the many varieties of life.
• Global Challenge: Resources

Al Gore: 15 Ways to Avert a Climate Crisis (2006)

www.ted.com/index.php/talks/al_gore_on_averting_climate_crisis.html

• Running Time: 16.18 minutes
• Description: This talk describes current issues related to global climate changes. His talk has a good deal of humor and is quite entertaining. He provides practical ways to reduce the effects of global climate change.
• Global Challenge: Resources

Nicholas Negroponte: The Vision Behind One Laptop Per Child (2006)

www.ted.com/index.php/talks/nicholas_negroponte_on_one_laptop_per_child.html

• Running Time: 17 minutes
• Description: Nicholas Negroponte discusses his work to provide cheap ($100), portable, self-charging laptops to developing countries. He talks about how these laptops can change education and ultimately reduce poverty.
• Global Challenges: Technology (Computeration)

Hans Rosling: Debunking Third-World Myths (2006)

www.ted.com/index.php/talks/hans_rosling_shows_the_best_stats_you_ve_ever_seen.html

• Running Time: 19.50 minutes
• Description: This talk describes the changes that have occurred and are predicted to occur in wealth distribution, fertility rates, population growth, and health within and between countries. Hans Rosling displays statistics using extremely interesting and unique graphics of changing trends. He breaks down several myths relating to difference between economically less developed and more developed countries.
• Global Challenges: Population, Economic Integration, Technology

Rives: "If I Controlled the Internet" (2006)

www.ted.com/index.php/talks/rives_controls_the_internet.html

• Running Time: 4:07
• Description: Short humorous poem about the Internet. Good way to break up a lecture.
• Global Challenge: Information

Ashraf Ghani: Rebuilding Broken States (2006)

www.ted.com/talks/lang/eng/ashraf_ghani_on_rebuilding_broken_states.html

• Running Time: 10 minutes
• Description: Ghani emphasizes the necessity of both economic investment and design ingenuity to rebuild broken states.
• Global Challenges: Economic Integration, Governance

Jeff Han: Unveiling the Genius of Multi-Touch Interface Design (2006)

http://www.ted.com/talks/jeff_han_demos_his_breakthrough_touchscreen.html

• Running Time: 8:48
• Description: A short lecture demonstrating cutting edge technology for human-computer interface showing an innovative touch screen. This is an interesting example of the future of technology.
• Global Challenge: Technology

Ray Kurzweil: How Technology's Accelerating Power Will Transform Us (2005)

www.ted.com/index.php/talks/ray_kurzweil_on_how_technology_will_transform_us.html

- Running Time: 22:56
- Description: Ray Kurzweil is an entrepreneur and inventor and has a unique perspective on the future merging of medicine, neuroscience and computers. He claims that by the 2020s, we will have reverse-engineered the human brain and nanobots will be operating your consciousness. His talk has great graphics, videos and imagery.
- Global Challenge: Technology

Robert Neuwirth: Our "Shadow" Cities (2005)

www.ted.com/talks/robert_neuwirth_on_our_shadow_cities.html

- Running Time: 14 minutes
- Description: Robert Neuwirth, author of Shadow Cities, finds the world's squatter sites—where a billion people now make their homes—to be thriving centers of ingenuity and innovation.
- Global Challenges: Population (Urbanization), Economic Integration

Thomas Barnett: A New Map for Peace (2005)

www.ted.com/talks/lang/en/thomas_barnett_draws_a_new_map_for_peace.html

- Running Time: 23.45 minutes
- Description: International security strategist Thomas Barnett outlines a post-Cold War solution for the foundering U.S. military.
- Global Challenge: Security

Juan Enriquez: Decoding the Future with Genomics (2003)

http://www.ted.com/talks/juan_enriquez_on_genomics_and_our_future.
htmlRunning Time: 22:20

- Description: Juan Enriquez talks about the future of genomics and genetically modified organisms. He discusses why it will be important for everyone to have an understanding of genetics.
- Global Challenge: Technology (Biotechnology)

Radio Programs

"Famine in Africa," Marketplace, American Public Media (2012)

www.marketplace.org/topics/world/famine-africa

- Description: A special series on famine and food insecurity in the Horn of Africa
- Global Challenge: Resources (Food)

Special Series, "7 Billion and Counting," NPR (2011)
www.npr.org/series/141810687/7-billion-people-one-planet
• Description: The U.N. says today symbolically marks the moment when the world's population reaches 7 billion. A little more than two centuries ago, the global population was 1 billion. How did it grow so big so fast? With the help of a sound montage and video, it gets a bit easier to see how the Earth can produce that kind of a crowd.
• Global Challenges: Population, Resources

"No Flying Car, But How About an Invisibility Cloak?" All Things Considered, NPR (2011)
www.npr.org/2011/03/26/134600339/no-flying-car-but-how-about-an-invisibility-cloak?ps=rs
• Running Time: 7 minutes
• Description: An interview with Michio Kaku, the author of the book, *Physics of the Future: How Science Will Shape Human Destiny and Our Daily Lives by the Year 2100.* Dr. Kaku talks about projecting into the future and the technology that awaits us.
• Global Challenge: Technology

"Ethanol Takes A Hit Amid Falling Oil Prices," All Things Considered, NPR (2009)
www.npr.org/templates/story/story.php?storyId=99083936
• Running Time: 5 minutes
• Description: Provides information about energy prices and ethanol.
• Global Challenges: Resources, Technology

"Wired For War Explores Robots on The Battlefield," Fresh Air, WHYY (2009)
www.npr.org/templates/story/story.php?storyId=99663723
• Running Time: 39 minutes
• Description: A Fresh Air interview with P.W. Singer, the author of the book, Wired For War. He discusses how some military tasks previously assigned to humans are now being handled by machines, the technology behind the machines, how soldiers are affected by using these machines as weapons, and the future of war.
• Global Challenges: Conflict, Technology

"Michael Pollan Offers President Food For Thought," Fresh Air, WHYY (2009)
www.npr.org/templates/story/story.php?storyId=100755362 Running Time: 24 minutes
• Description: Michael Pollan is professor of science and environmental journalism at University of California at Berkeley and author of several best-selling books such as The Omnivore's Dilemma: A Natural History of Four Meals. He discusses a new way of thinking about how we subsidize agriculture and suggests ways of changing food policies.
• Global Challenge: Resources

"Episode 355: The Giant Pool of Money," This American Life, WBEZ (2008)
www.thisamericanlife.org/radio-archives/episode/355/the-giant-pool-of-money
• Running Time: 54 minutes
• Description: An episode of This American Life that tackles the housing crisis,
   subprime loans and the turmoil on Wall Street. Why did banks make extremely
   large loans to people without jobs or income?
• Rating: Excellent
• Global Challenges: Economic Integration, Governance

**"Study Shows that Europe's Population Falling," All Things Considered,
NPR (2008)**
www.npr.org/templates/story/story.php?storyId=93995083
• Running Time: 5 minutes
• Description: This short program is about how population in European countries is
   dropping dramatically and discusses some of the related problems.
• Rating: Very good
• Global Challenges: Population

"(So-Called) Life," Radiolab (2008)
www.radiolab.org/2008/apr/07/
• Running Time: 60 minutes
• Description: This is a very entertaining and informative program on research in
   biotechnology and bioengineering. It talks about present research and makes
   some interesting predictions about the future.
• Global Challenge: Technology

**"Insurers Eye Savings from Treatment Overseas," The Bryant Park Project,
NPR (2008)**
www.npr.org/templates/story/story.php?storyId=90268099
• Running Time: 7 minutes
• Description: This program discusses how medical tourism is becoming more and
   more common and is a good example of outsourcing.
• Global Challenge: Economic Integration

"Do Trees Worsen Droughts," All Things Considered, NPR (2008)
www.npr.org/templates/story/story.php?storyId=88984769
• Running Time: 5 minutes
• Description: This short program discusses how countries might deal with the
   increasing occurrences of drought with climate change. It focuses on Panama and
   how the Panama Canal requires a large amount of water to function and how a
   local rainforest affects the water flow.
• Global Challenge: Resources (Water)

YouTube *(www.youtube.com)*

Seven Billion: How Did We Get So Big So Fast (2011)

www.youtube.com/watch?v=VcSX4ytEfcE

- Running Time: 2:34 minutes
- Description: Great short video describing the growth of population using liquids filling and emptying from cylinders.
- Global Challenge: Population

P.W. Singer: Military Robots and the Future of War (2009)

www.youtube.com/watch?v=M1pr683SYFk

- Running Time: 16:06 minutes
- Description: P.W. Singer shows how the widespread use of robots in war is changing the realities of combat. He shows us scenarios straight out of science fiction—that now may not be so fictitious.
- Global Challenge: Security

Types of Government, Explained (2009)

www.youtube.com/watch?v=N4r0VUybeXY

- Running Time: 10:35 minutes
- Description: This video explains the different types of government, what they mean and what they stand for.
- Global Challenge: Governance

P. W. Singer on the Daily Show (2009)

www.thedailyshow.com/video/index.jhtml?videoId=217010&title=P.W.-Singer

- Running Time: 6:07 minutes
- Description: P.W. Singer questions whether the advances in robotics help us in 21st century warfare. A lighter approach to military robots.
- Global Challenge: Security

The Truth According To Wikipedia (2008)

www.youtube.com/watch?v=WMSinyx_Ab0

- Running Time: 48 minutes
- Description: Google or Wikipedia? Those of us who search online—and who doesn't?—are getting referred more and more to Wikipedia. For the past two years, this free online "encyclopedia of the people" has been topping the lists of the world's most popular websites. But do we really know what we're using? Backlight plunges into the story behind Wikipedia and explores the wonderful world of Web 2.0. Is it a revolution, or pure hype?
- Global Challenge: Information

Biofuel BacklashWorld (2008)

www.youtube.com/watch?v=dpf3C2EReVo&feature=related
- Running Time: 12:55
- Description: Discusses how biofuels (such as ethanol) are not very cost efficient or environmentally friendly. How using corn for fuels affects the food supply of the world is also discussed.
- Global Challenges: Technology, Resources

Why are Plastic Bags Evil? (2008)

www.youtube.com/watch?v=i20tw5Gcjfg
- Running Time: 1:46
- Description: This was a project created by a student in a Global Challenges class at CSU Fresno. In this "save the world" project, students were asked to spend at least five hours enacting change related to one of the problems discussed in the course. It is an animated short film about the evils of plastics bags.
- Global Challenges: Resources, Technology

Lake Chad Under Threat (2008)

www.youtube.com/watch?v=JTZUCy8tkgI
- Running Time: 3:35
- Description: This short program shows how Lake Chad (one of the largest lakes in Africa) has shrunk to 10 percent of its size only a few decades ago.
- Global Challenge: Resources (Water)

Google Books (2007)

www.youtube.com/watch?v=u8vKFz09ric&feature=related
- Running Time: 0:39
- Description: Google is making the attempt to scan in millions of books; this video shows how Google book scanners work.
- Global Challenge: Information

The Myth about Ethanol (2007)

www.youtube.com/watch?v=j9QQcP_Y1lI
- Running Time: 4:45
- Description: John Stossel from ABC's 20/20 discusses the myths and problems that come from using ethanol as fuel.
- Global Challenge: Technology, Resources

"Vegetable Oil for Your Volvo Diesel," Top Gear, BBC (2007)

www.youtube.com/watch?v=GOFbsaNeZps&feature=rec-fresh
- Running Time: 4:11
- Description: This is a short clip from the BBC program Top Gear about using bio-diesel made from cooking oil to run a car.
- Global Challenges: Technology, Resources

Unnatural Selection—A Documentary (2007)

www.youtube.com/watch?v=RmYoi2QqoqE

• Running Time: 9:59
• Description: This program discusses the current problem of the declining primate population around the world. This heart-wrenching program drives home the importance of the threat facing great apes and monkeys.
• Global Challenge: Resources

Global Environmental Outlook (2007)

www.youtube.com/watch?v=EoIp9yeC78k

• Running Time: 7:44
• Description: This short video discusses the pressing problem of environmental changes including pollution, global climate change and depleting biodiversity. This discusses the United Nations Environment Program, GEO-4.
• Global Challenge: Resources (Climate)

Other Online Videos

"The Ground Water Story" (2012)

www.kingcounty.gov/environment/waterandland/groundwater/education/animation.aspx

• Running Time: 3:40 minutes
• This is an animated short film about groundwater. It provides good information, but is also very humorous.
• Global Challenge: Resources (Water), Technology

"U.S. Obesity Trends" (2010)

www.cdc.gov/nccdphp/dnpa/obesity/trend/maps/index.htm

• This shows the change in obesity percentages for each state from 1985 to 2007. The increase in obesity is shocking.
• Global Challenge: Resources (Food)

The Story of Stuff Project (n.d.)

www.storyofstuff.com/

• Running Time: 20 minutes
• From its extraction through sale, use and disposal, all the stuff in our lives affects communities at home and abroad, yet most of this is hidden from view. The Story of Stuff is a fast-paced, fact-filled look at the underside of our production and consumption patterns. It exposes the connections between a huge number of environmental and social issues, and calls us together to create a more sustainable and just world. It'll teach you something, it'll make you laugh, and it just may change the way you look at all the stuff in your life forever. Description directly from www.storyofstuff.com/ website, from which the animation can be played directly.
• Global Challenges: Resources, Economic Integration

Miniature-Earth (2010)

www.miniature-earth.com
- Running Time: 3:45 minutes
- Description: Short streaming video providing power statistics about the world's population in terms of economics, religion and healthcare. It asks the viewer to image the world's population is 100; then give world statistics relative to that number (e.g., 18 struggle to live a less than $1.00 a day and 53 live on less than $2.00 per day).
- Global Challenges: Population, Economic Integration

"Black Money" (2009)

www.pbs.org/wgbh/pages/frontline/blackmoney/
- Running Time: Approximately 2 hours
- As the global financial downturn continues and pressure for profits increases on corporations across the world, a small group of lawyers in the U.S. Justice Department is pursuing an aggressive crackdown against an international business tactic—bribery—which the World Bank says amounts to as much as a trillion dollars a year in payments.
- Global Challenge: Governance

"Aqua Colbert" (2008)

www.colbertnation.com/the-colbert-report-videos/164482/march-20-2008/aqua-colbert
- Running Time: 2:34 minutes
- Description: A very humorous short film on the comedy show, The Colbert Report. It is spoof on how damaging and impractical plastic water bottles are. Warning: This video has a couple of off-color references.
- Global Challenges: Resources, Technology

What About This Fish? (2001)

www.pbs.org/wgbh/harvest/etc/video.html
- Running Time: 5:35
- A short report about genetically modified salmon and some of the concerns related to natural stocks of salmon.
- Global Challenges: Technology, Resources

Videos/DVDs

There is a wide selection of videos/DVDs that could be used in a Global Challenges course. The descriptions are from video websites.

Transcendent Man: Prepare to Evolve (2009)

- Running Time: 83 minutes
- Description: "Inventor and futurist Ray Kurzweil is the subject of this documentary that follows him on a world speaking tour in which he expounds on his ideas about the merging of man and machine, which he predicts will occur in the not-so-distant future. The visionary who invented the first text-to-speech synthesizer and much more raises eyebrows here with his wildly optimistic views of a technology-enhanced future."—Netflix
- Global Challenge: Technology

The Global Banquet: The Politics of Food (2007)

olddogdocumentaries.com/vid_gb.html (available on DVD.)

- Running Time: 56 minutes
- The Global Banquet examines the ethical questions at the heart of the globalization debate, including how food security and social development are related and how factory farming can lead to degradation of the natural environment.
- Global Challenge: Resources (Food)

Stolen Childhoods (2004)

www.stolenchildhoods.org/mt/index.php (available on DVD.)

- Running Time: 85 minutes
- This film places children's stories in the broader context of the worldwide struggle against child labor. Stolen Childhoods provides an understanding of the causes of child labor, what it costs the global community, how it contributes to global insecurity and what it will take to eliminate it. Clips, perhaps more useful, can be viewed online. (For example, this clip discusses children working on an onion farm in Texas: *www.stolenchildhoods.org/mt/archives/videostories/texas_fields/index.php*).
- Global Challenges: Population, Economic Integration

One Peace at a Time (2009)

nobelity.org/one-peace-at-a-time-2009/ (trailer)

- Running Time: 83 minutes
- This documentary explores hopeful solutions to global human rights issues. It features interviews with Muhammad Yunus, Stephen Chu and others.
- Global Challenges: Population, Resource Management, Economic Integration, Security

I.O.U.S.A. (2009)

www.iousathemovie.com (A 30-minute version of the movie can be seen here).
- Running Time: 80 minutes
- Through the eyes of former U.S. Comptroller General David Walker, I.O.U.S.A. daringly examines the history and rapid growth of the U.S. national debt and the effects that it will have on U.S. citizens and the world.
- Global Challenges: Economic Integration

On Our Watch (2008)

www.pbs.org/wgbh/pages/frontline/darfur/
- Running Time: 60 minutes
- This video addresses the humanitarian crisis in Darfur that has been labeled the first genocide of the 21st century. It examines the emerging crisis in Darfur beginning in 2003; the dynamics of the situation as a UN official pressed the world to act; the UN's numerous ineffective efforts to intervene; and the flickers of hope that emerged in 2007. The video is supported by web links to additional information about the crisis in Darfur.
- Global Challenge: Security

Bush's War (2008)

www.pbs.org/wgbh/pages/frontline/bushswar/
- Running Time: 270 minutes
- Description: 9/11 and Al Qaeda, Afghanistan and Iraq, WMD and the Insurgency, Guantanamo, Abu Ghraib, Fallujah and the Surge. For six years, FRONTLINE revealed those stories in meticulous detail, and the political dramas played out at the highest levels. On the fifth anniversary of the Iraq invasion, the full saga was unfolded in this special definitive documentary analysis of one of the most challenging periods in U.S. history. (Description from website at *www.shoppbs. org/.*)
- Global Challenge: Security

Flow: For Love of Water (2008)

- Running Time: 84 minutes
- Description: This is a powerful documentary of the current state of freshwater ownership, privatization and distribution around the world. The film discusses the conflict between "predatory" corporations and engaged citizens over water rights and usage. For example, it discusses how companies like Coke and Pepsi use water in Indi—and Nestles uses water in Michigan—for bottled water. This film also documents water wars in Bolivia, privatization in Africa, and issues of pollution of freshwater around the world. It promotes lively and emotional discussion in class.
- Global Challenges: Resources, Technology, Economic Integration, Security

Car of the Future: Engineering for the Environment (2008)

www.pbs.org/wgbh/nova/car/program.html
- Running Time: 54 min
- Description: This documentary looks at several manufacturers and entrepreneurs who are creating more efficient, eco-friendly cars, such as new versions of hybrids, hydrogen fuel cells and electric cars. The hosts, Ray and Tom Magliozzi (of Car Talk fame), add some humor that makes the documentary more enjoyable for students while discussing serious issues.
- Global Challenges: Technology, Resources (Energy)

The 11th Hour (2008)

- Running Time: 92 min
- In this documentary several of the world's experts on climate change and sustainability are interviewed, including former Soviet leader Mikhail Gorbachev, Cambridge physicist Stephen Hawking, progressive CEO Ray Anderson, and scientist and activist David Suzuki. It contains wonderful video footage and has a very high production value. Hosted by Leonardo DiCaprio, it appears to be intended for a younger, college-age, audience. In this documentary they discuss both the science and philosophy of the future of our planet.
- Global Challenges: Population, Resources, Technology

Outsourced (2008)

- Running Time: 103 minutes
- A phone sales manager must travel to India to train operators and his own replacement.
- Global Challenge: Economic Integration

China from the Inside (2007)

- Running Time: 240 minutes
- Description: China from the Inside is a series of four documentaries that survey China through Chinese eyes to see how history has shaped them and where the present is taking them. Episodes include "Power and the People," which deals with the governance of China; "The Women," which talks about the past and future for Chinese women; "Shifting Nature," a look at China's environmental challenges; and "Freedom," an exploration of China's conflict between personal freedom and governance (description from *www.shoppbs.org/*).
- Global Challenges: Population, Resources, Governance

Planet Earth (2007)

- Running Time: Eleven 50 minute episodes
- According to multiple reviews, this is the best nature and wildlife series ever made. The film covers the world's different habitats in 50 minute pieces, including mountains, caves and desserts, ending with a three-part discussion of sustainability and the current environmental threats that our world faces. This series is not to be missed by anyone interested in natural resources, the environment, sustainability and the future of our planet.
- Global Challenge: Resources

Children of Men (2007)

- Running Time: 110 minutes
- Based on the 1993 novel by P.D. James, the movie is a cautionary tale of potential things to come. Set in the crisis-ravaged future of 2027, humanity has become infertile, immigration is a crime, refugees are caged like animals, and the world has been torn apart by nuclear fallout, rampant terrorism and political rebellion.
- Global Challenge: Population, Technology

An Inconvenient Truth (2006)

- Running Time: 96 minutes
- Description: From director Davis Guggenheim, *An Inconvenient Truth* is a passionate and inspirational look at former Vice President Al Gore's fervent crusade to halt global warming's deadly progress by exposing the myths and misconceptions that surround it. Interspersed with the bracing facts and future predictions is the story of Gore's personal journey: from an idealistic college student who first saw a massive environmental crisis looming; to a young Senator facing a harrowing family tragedy that altered his perspective; to the man who almost became President but instead returned to the most important cause of his life. With an emphasis on hope, *An Inconvenient Truth* ultimately shows us that global warming is no longer a political issue but rather, the biggest moral challenge facing our civilization today. (Description from www.climatecrisis.net/an_inconvenient_truth/about_the_film.php.)

Why We Fight (2006)

- Running Time: 98 min
- *Why We Fight* features interviews and observations by experts on the military, including Senator John McCain, Gore Vidal and Dan Rather. It begins with the prophetic speech by President Dwight D. Eisenhower in which he warned of the rise of the "military industrial complex." The film discusses the forces—political, economic and ideological—that drive us to fight against an ever-changing enemy. This film won the Grand Jury Prize at the 2005 Sundance Film Festival. Although it brings in experts from a number of different ideologies, the film does tend to have a left-leaning viewpoint on the military and war.
- Global Challenge: Security

World in the Balance: The Population Paradox (2004)

www.pbs.org/wgbh/nova/worldbalance/

• Running Time: 120 minutes
• This documentary discusses how countries, such as Africa, India and Japan, are facing different problems related to their current and changing population demographics. It provides a number of good graphics (population pyramids) and statistics, but also relates these issues to individual, very personal, stories. The film discusses birth control and women's rights in India, how HIV/AIDS in Africa has resulted in tragic cases that change the role of extended families, and how modernization has caused dramatically decreased fertility rates in Japan.
• Global Challenge: Population

Commanding Heights (2002)

• Running Time: 360 minutes
• This three-part, six-hour documentary focuses on the history and impact of the new global economy, explaining macroeconomics and their current political and social importance without ever causing a loss of consciousness for the viewer. Segments include the history of economic thought, deregulation and consequences of globalization. Interviews with several world leaders are featured.
• Global Challenge: Economic Integration

6 Billion and Beyond (1999)

www.berkeleymedia.com/ (educational discounts available.)

• Running Time: 60 minutes
• A review quoted on the website says, "This film manages, miraculously, not to fall into the simplistic trap of equating population growth with abstract numbers that count up doom and disaster. Rather, it reminds us that this is the most human of all subjects, and its future depends above all on the human lives of young women, who live in many different circumstances in many parts of the earth. It depicts these young women, appropriately, as looking ahead to lives very different from those of their mothers—lives at a global turning point toward lower birth rates and population stabilization." —*Donella Meadows, Professor, Environmental Studies, Dartmouth College*
• Global Challenge: Population

Gattaca (1998)

• Running Time: 106 minutes
• In this science fiction film, being genetically engineered is an asset, while those naturally born are considered flawed. It is part thriller, part futuristic drama and cautionary tale.
• Global Challenges: Technology

Other popular movies that could be useful, perhaps in a co-curricular setting, include *Hotel Rwanda, Slum Dog Millionaire* and *Blood Diamond.*

Background Reading

If you are considering adopting the Global Challenges blended learning course or preparing to teach Global Challenges, here are some suggestions for background reading. The descriptions are from Amazon unless otherwise stated.

- **Michio Kaku, *The Physics of the Future* (2012)**
  Kaku (Physics of the Impossible), a professor of physics at the CUNY Graduate Center, gathers ideas from more than 300 experts, scientists and researchers at the cutting edge of their fields, to offer a glimpse of what the next 100 years may bring. The predictions all conform to certain ground rules (e.g., "Prototypes of all technologies mentioned . . . already exist"), and some seem obvious (computer chips will continue to get faster and smaller). Others seem less far-fetched than they might have a decade ago: For instance, space tourism will be popular, especially once a permanent base is established on the moon. Other predictions may come true—downloading the Internet right into a pair of contact lenses—but whether they're desirable is another matter. Some of the predictions are familiar but still startling: robots will develop emotions by mid-century, and we will start merging mind and body with them. Despite the familiarity of many of the predictions to readers of popular science and science fiction, Kaku's book should capture the imagination of everyday readers.

- **Laurence C. Smith, *The World in 2050: Four Forces Shaping Civilization's Northern Future* (2011)**
  Smith is a professor of geography at UCLA. He provides a nice introductory exploration of the geography of the northern hemisphere with an assessment of the history of settlement and resource use in the region. He analyzes the implications of demographic trends, like aging and urbanization, and then does an excellent job of explaining the current conclusions of climate scientists about the impact of climate change in the region. His primary focus is on the eight nations of the arctic rim, including the U.S. He concludes that there will be benefits as well as challenges for the people of the northern periphery, while his assessment of the impact of warming on the people of the equatorial regions is far more grim. Overall, it is a well-written and thorough analysis about resource use, demographic trends and the impacts of climate change over the next 40 years.

- **Jeffrey D. Sachs, *The Price of Civilization* (2011)**
  One of the world's most brilliant economists and the bestselling author of *The End of Poverty,* Jeffrey Sachs has written a book that is essential reading for everyone—politicians, people in business and industry and you. Setting out a bold and provocative, yet responsible and achievable, plan, *The Price of Civilization* reveals why we must—and how we can—change our entire economic culture in this time of crisis. The world economy remains in a precarious state after the recent global recession, where quick fixes were implemented instead of sustainable solutions to systemic problems. Sachs argues powerfully for a new co-operative, common sense political economy, one that stresses practical partnership between government and the private sector; demands competence

in both arenas; and occasionally insists on carefully chosen public and private sacrifices. In this new era of global capitalism, Sachs believes that we have to forget partisanship and solve these enormous problems together, clinically and holistically, just as one would approach the eradication of a disease. *The Price of Civilization* explains how government can be made to reform corporate culture by fairly policing compensation but not stifling competition and forced to improve our energy infrastructure by both taxing emissions and providing market incentives for innovation. Sachs shows how government, business and citizens can find common ground—on bank accountability, the decentralizing of social services and taxing the super-rich—as a way to achieve our shared goals of efficiency, equity and sustainability. Sparing no one but potentially benefiting us all, *The Price of Civilization* is a masterful roadmap, a program designed to bridge seemingly impossible divides in our society and a way forward that we—and our leaders— ignore at our peril.

- **Fareed Zakaria, *The Post American World: Release 2.0* (2011)**
  "This is not a book about the decline of America, but rather about the rise of everyone else." So begins Fareed Zakaria's important new work on the era we are now entering. Following on the success of his best-selling *The Future of Freedom,* Zakaria describes with equal prescience a world in which the United States will no longer dominate the global economy, orchestrate geopolitics or overwhelm cultures. He sees the "rise of the rest"—the growth of countries like China, India, Brazil, Russia and many others—as the great story of our time, and one that will reshape the world. The tallest buildings, biggest dams, largest-selling movies and most advanced cell phones are all being built outside the United States. This economic growth is producing political confidence, national pride and potentially international problems. How should the United States understand and thrive in this rapidly changing international climate? What does it mean to live in a truly global era? Zakaria answers these questions with his customary lucidity, insight and imagination.

- **Fred Pearce, *The Coming Population Crash and Our Planet's Surprising Future* (2010)**
  Demography is destiny. But not always in the way we imagine, begins Pearce (*When the Rivers Run Dry*) in his fascinating analysis of how global population trends have shaped, and been shaped by, political and cultural shifts. He starts with Thomas Malthus, whose concept of overpopulation—explicitly of the uneducated and poor classes—and depleted resources influenced two centuries of population and environmental theory, from early eugenicists (including Margaret Sanger) to the British colonial administrators presiding over India and Ireland. Pearce examines the roots of the incipient crash in global population in decades of mass sterilizations and such government interventions as Mao's one-child program. Many nations are breeding at less than replacement numbers (including not only the well-publicized crises in Western Europe and Japan, but also Iran, Australia, South Africa and possibly soon China and India). Highly readable and marked by first-class reportage, Pearce's book also highlights those at the helm

of these vastly influential decisions—the families themselves, from working-class English families of the industrial revolution to the young women currently working in the factories of Bangladesh.

- **P.W. Singer, *Wired for War: The Robotics Revolution and 21st Century Conflict* (2009)**
  What happens when science fiction becomes battlefield reality? A military expert reveals the coming high-tech revolution in warfare, examining its vast effects and warning of its historic and potentially deadly impact (From the author's website.)

- **Ishmael Beah, *A Long Way Gone: Memoirs of a Boy Soldier* (2008)**
  This account by a young man who, as a boy of 12, gets swept up in Sierra Leone's civil war, goes beyond even the best journalistic efforts in revealing the life and mind of a child abducted into the horrors of warfare. Beah's journey transforms him overnight from a child enthralled by American hip-hop music and dance to an internal refugee bereft of family, wandering from village to village in a country grown deeply divided by the indiscriminate atrocities of unruly, sociopathic rebel and army forces. Beah then finds himself in the army—in a drug-filled life of casual mass slaughter that lasts until he is 15, when he's brought to a rehabilitation center sponsored by UNICEF and partnering NGOs.

- **Jeffrey D. Sachs, *Common Wealth: Economics for a Crowded Planet* (2008)**
  In this sobering but optimistic manifesto, development economist Sachs (*The End of Poverty*) argues that the crises facing humanity are daunting—but solutions to them are readily at hand. Sachs focuses on four challenges for the coming decades: heading off global warming and environmental destruction; stabilizing the world's population; ending extreme poverty; and breaking the political logjams that hinder global cooperation on these issues. The author analyzes economic data, demographic trends and climate science to create a lucid, accessible and suitably grim exposition of looming problems, but his forte is elaborating concrete, pragmatic, low-cost remedies complete with benchmarks and budgets. Sachs's entire agenda would cost less than 3 percent of the world's annual income, and he notes that a mere two days' worth of Pentagon spending would fund a comprehensive anti-malaria program for Africa, saving countless lives. Forthright government action is the key to avoiding catastrophe, the author contends, not the unilateral, militarized approach to international problems that he claims is pursued by the Bush administration. Combining trenchant analysis with a resounding call to arms, Sachs's book is an important contribution to the debate over the world's future. (Copyright© Reed Business Information, a division of Reed Elsevier Inc. All rights reserved.)

- **Thomas L. Friedman, *The World is Flat: A Brief History of the 21st Century* (2005)**
  Friedman is not so much futurist, which he is sometimes called, as a pessimist. His aim in *The World Is Flat,* as in his earlier, influential *Lexus and the Olive Tree,* is not to give you a speculative preview of the wonders that are sure to come in your lifetime, but rather to get you caught up on the wonders that are already here. The

world isn't going to be flat, it is flat, which gives Friedman's breathless narrative much of its urgency, and which also saves it from the Epcot-style polyester sheen that futurists—the optimistic ones at least—are inevitably prey to. (Reviewed by Tom Nissley.)

- **Ray Kurzweil, *The Singularity Is Near: When Humans Transcend Biology* (2005)**
  Renowned inventor Kurzweil (*The Age of Spiritual Machines*) may be technology's most credibly hyperbolic optimist. Elsewhere he has argued that eliminating fat intake can prevent cancer; here, his quarry is the future of consciousness and intelligence. Humankind, it runs, is at the threshold of an epoch ("the singularity," a reference to the theoretical limitlessness of exponential expansion) that will see the merging of our biology with the staggering achievements of "GNR" (genetics, nanotechnology and robotics) to create a species of unrecognizably high intelligence, durability, comprehension, memory and so on. The word "unrecognizable" is not chosen lightly: wherever this is heading, it won't look like us. Kurzweil's argument is necessarily twofold: It's not enough to argue that there are virtually no constraints on our capacity; he must also convince readers that such developments are desirable. In essence, he conflates the wholesale transformation of the species with "immortality," for which read a repeal of human limit. In less capable hands, this phantasmagoria of speculative extrapolation, which incorporates a bewildering variety of charts, quotations, playful Socratic dialogues and sidebars, would be easier to dismiss. But Kurzweil is a true scientist—a large-minded one at that—and gives due space both to "the panoply of existential risks" as he sees them and the many presumed lines of attack others might bring to bear. What's arresting isn't the degree to which Kurzweil's heady and bracing vision fails to convince—given the scope of his projections, that's inevitable—but the degree to which it seems downright plausible. (Copyright© Reed Business Information, a division of Reed Elsevier Inc. All rights reserved.)

- **Steven D. Levitt and Stephen J. Dubner, *Freakonomics: A Rogue Economist Explores the Hidden Side of Everything* (2005)**
  Freakonomics is a ground-breaking collaboration between Levitt and Dubner, an award-winning author and journalist. They usually begin with a mountain of data and a simple, unasked question. Some of these questions concern life-and-death issues; others have an admittedly freakish quality. Thus the new field of study contained in this book: *Freakonomics. (http://www.freakonomics.com/books/)*

- **P.W. Singer, *Children at War* (2005)**
  The first American serviceman killed by hostile fire in Afghanistan was a Green Beret, shot by a 14-year-old boy; just a few weeks after, a Special Forces medic was killed by a grenade thrown by a 15-year-old alQaeda recruit, later imprisoned at Guantanamo Bay. Suspected militants detained by U.S. forces in Iraq included more than 100 children under the age of 17; hundreds taken hostage in Thailand were held captive by the rebel "God's Army," led by 12-year-old twin brothers. These are but examples within the more than 300,000 cases of children presently at war around the world today. (From the author's website.)

- **Donella H. Meadows, Jorgen Randers and Dennis L. Meadows, *Limits to Growth: The 30-year Update* (2004)**
  This is the 30-year update to the groundbreaking 1972 book by three MIT scientists who developed a computer model analyzing global resource consumption. The book provides an in-depth exploration of the consequences of trends in population growth, resource consumption and economic growth. While not "predictive," the book shares "possible" futures based upon present and future trends and explores the concept of "overshoot."

- **P.W. Singer, *Corporate Warriors: The Rise of the Privatized Military Industry* (2003)**
  More than 20,000 private soldiers serve in Iraq, including at Fallujah and Abu Ghraib; from the Balkans to Central Asia, corporations now run the supply chain of US forces; an army for hire takes on rebel forces in West Africa, with diamond mines as the prize. In this book, P.W. Singer provides the first account of the military services industry and its broader implications, replete with case studies of such firms as Halliburton and Executive Outcomes. The privatization of warfare allows startling new capabilities and efficiencies in the ways that war is carried out. At the same time, however, the entrance of the profit motive onto the battlefield raises a series of troubling questions—for democracy, for ethics, for law, for human rights and for national security. (From the author's website.)

- **Ellis Jones, Ross Haenfler and Brett Johnson, *The Better World Handbook: Small Changes That Make A Big Difference* (2001)**
  This book focuses on foundations for a better world, including (1) Economic Fairness, (2) Comprehensive Peace, (3) Ecological Sustainability, (4) Deep Democracy, (5) Social Justice, (6) Culture of Simplicity and (7) Revitalized Community. It provides the 10 top actions and a shopper's guide.

- **Muhammad Yunus, *Banker to the Poor: Micro-Lending and the Battle Against World Poverty* (1999)**
  This is an inspiring memoir of the birth of microcredit, written in a conversational tone that makes it both moving and enjoyable to read. The Grameen Bank is now a $2.5 billion banking enterprise in Bangladesh, while the microcredit model has spread to over 50 countries worldwide, from the U.S. to Papua New Guinea, Norway to Nepal. Ever optimistic, Yunus travels the globe spreading the belief that poverty can be eliminated: " . . . the poor, once economically empowered, are the most determined fighters in the battle to solve the population problem; end illiteracy; and live healthier, better lives. When policymakers finally realize that the poor are their partners, rather than bystanders or enemies, we will progress much faster that we do today." Dr. Yunus's efforts prove that hope is a global currency. (Reviewed by Shawn Carkonen.)

Course Texts

Some instructors rely exclusively on instructional materials posted on their Epsilen course website—articles, photographs, maps, videos and audio clips. Others use textbooks and periodicals in additional to the Epsilen-based materials. Here are some suggestions for course texts.

- **James E. Harf and Mark O. Lombardi, *Taking Sides: Clashing Views on Global Issues* (2012)**
  Taking Sides presents current controversial issues in a debate-style format designed to stimulate student interest and develop critical thinking skills. Each issue is framed with an issue summary, an issue introduction and a postscript. An instructor's manual with testing material is available online for each volume.

- **Robert Jackson (Ed.), *Annual Editions: Global Issues* (2011)**
  This is one in a series of over 65 volumes, each designed to provide convenient, inexpensive access to a wide range of current articles from some of the most respected magazines, newspapers and journals published today. *Global Issues* are updated on a regular basis through a continuous monitoring of over 300 periodical sources. The articles selected are authored by prominent scholars, researchers and commentators writing for a general audience. The Annual Editions volumes have a number of common organizational features designed to make them particularly useful in the classroom: a general introduction; an annotated table of contents; a topic guide; an annotated listing of selected websites; and a brief overview for each section. Each volume also offers an online Instructor's Resource Guide with testing materials.

- **Paula S. Rothenberg, *Beyond Borders: Thinking Critically about Global Issues* (2005)**
  At a time when events anywhere in the world have the potential to create an almost instantaneous impact on life in the most remote hamlet, village or town, it is essential that students learn how to think globally. Paula Rothenberg's *Beyond Borders* is an interdisciplinary collection that brings today's most pressing global issues into the classroom. Designed to help prepare today's college students to assume their roles as members of an increasingly global community, this powerful collection includes 82 articles written by today's leading scholars, activists and policymakers from around the world. In the tradition of Rothenberg's other widely acclaimed college texts, these highly readable, often gripping, articles are presented within a conceptual framework that encourages a thoughtful understanding of the complexities that have given rise to the issues they address. It has never been more important for students to learn to think critically about the world and their place in it. *Beyond Borders* is designed to help create such classroom conversations in courses across the disciplines.

- **James Gustav Speth (Ed.), *Worlds Apart: Globalization and the Environment* (2003)**
  This is a collection of essays by leading thinkers on the subject of globalization and related environmental issues.

National Issues Forum *(www.nifi.org/)*

National Issues Forum publishes pamphlets on topics such as education, energy and environment, government and politics and other current issues. Available as class sets, they present multiple sides of an issue. Many include a moderator's guide and questions. One NIF particularly useful for a Global Challenges course is *Immigration in America: How Do We Fix a System in Crisis?* (2011) *(http://www.nifi.org/issue_ books/detail.aspx?catID=6&itemID=20619).*

The New York Times Content Repository on Epsilen

The New York Times makes their current and archived resources on Global Challenge solutions available through their content repository embedded in the Epsilen platform used by the Global Challenges blended learning course. Available *Times* resources include interactive, audio and video features, in addition to the familiar print-based articles. For more information see *http://www.aascu.org/ GlobalChallenges/.*

CHAPTER 6

Expert Resources

As with many teaching endeavors, some of the best resources are the people who have already taught similar courses. The faculty members below have taught Global Engagement courses, or have used Global Engagement content in their courses, and invite you to contact them if you would like them to share their experience with you.

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About the Editors

Steven Elliott-Gower is an associate professor of political science and director of the honors program at Georgia College, where he teaches international relations and global issues (including Global Engagement freshman and sophomore seminars). He is faculty advisor to the Honors residential learning community, which focuses on global citizenship, and to the Model United Nations club. He received his Ph.D. in political science from the University of Georgia.

Dennis R. Falk is a distinguished teaching professor of social work and currently serves as a faculty fellow in the chancellor's office at the University of Minnesota Duluth, where his research interests include defining and promoting globally competent citizenship. He has taught a course on global issues in a variety of formats over the past 20 years, including large lecture classes, honors seminars and online offerings, and has been one of the driving forces behind the Global Engagement initiative for the last five years. He received his Ph.D. in educational psychology from the University of Minnesota.

Martin Shapiro is an associate professor of psychology at California State University, Fresno, where his primary research interests include theories of human and animal decision-making and electroencephalography. He has been involved with the Global Engagement project since April 2007. He received his Ph.D. in psychology, with a subspecialty in behavioral neuroscience, from the University of Hawaii, Manoa.

DELIVERING AMERICA'S PROMISE

AASCU's more than 400 public college and university members are found throughout the United States, including Guam, Puerto Rico and the U.S. Virgin Islands. We range in size from 1,000 students to 44,000. We are found in the inner city, in suburbs, towns and cities, and in remote rural America. We include campuses with extensive offerings in law, medicine and doctoral education—as well as campuses offering associate degrees to complement baccalaureate studies. We are both residential and commuter, and offer online degrees as well. Yet common to virtually every member institution are three qualities that define its work and characterize our common commitments.

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American Democracy Project

American Association of State Colleges and Universities