**The True Size of Africa**

A small contribution in the fight against rampant misinformation (by Kai Krause).

Graphic layout for visualization only, some countries are cut and rotated. But the conclusions are very accurate. Refer to table below for exact data.

<table>
<thead>
<tr>
<th>Country</th>
<th>Area (sq km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>9.617</td>
</tr>
<tr>
<td>USA</td>
<td>9.829</td>
</tr>
<tr>
<td>India</td>
<td>3.291</td>
</tr>
<tr>
<td>Mexico</td>
<td>1.954</td>
</tr>
<tr>
<td>Peru</td>
<td>1.286</td>
</tr>
<tr>
<td>France</td>
<td>9.59</td>
</tr>
<tr>
<td>Spain</td>
<td>5.056</td>
</tr>
<tr>
<td>Papua New Guinea</td>
<td>460</td>
</tr>
<tr>
<td>Sweden</td>
<td>441</td>
</tr>
<tr>
<td>Japan</td>
<td>378</td>
</tr>
<tr>
<td>Germany</td>
<td>357</td>
</tr>
<tr>
<td>Norway</td>
<td>324</td>
</tr>
<tr>
<td>Italy</td>
<td>361</td>
</tr>
<tr>
<td>New Zealand</td>
<td>370</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>245</td>
</tr>
<tr>
<td>Nepal</td>
<td>1.47</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>146</td>
</tr>
<tr>
<td>Greece</td>
<td>112</td>
</tr>
</tbody>
</table>

**TOTAL** 30,102

**AFRICA 30,221**

In addition to the well known social issues of illiteracy and immaturity, there also should be a concept as “immaturity”, meaning insufficient geographical knowledge.

A survey with random American schoolgirls let them guess the population and land areas of their country. Not entirely unexpected, but still rather unsettling, the majority chose “1-2 billion” and “largest in the world”, respectively.

Even with Asian and European college students, geographical estimates are often off by factors of 2-3. This is partly due to the highly distorted nature of the predominantly used mapping projections (such as Mercator).

A particularly extreme example is the worldwide misjudgement of the true size of Africa. This single image tries to embody the matter scale, which is larger than the USA, China, India, Japan and all of Europe, indeed considered.

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Global Trends: U.S. National Intelligence Council

✓ Working age populations are shrinking in wealthy countries
✓ The global economy is shifting
✓ Technology is accelerating but causing discontinuities
✓ Governing is getting harder
✓ Nature of conflict is changing
✓ Climate change—environment and health issues demand immediate attention
## Rapid Demographic Change

<table>
<thead>
<tr>
<th>2013</th>
<th>2045</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 China</td>
<td>1 India</td>
</tr>
<tr>
<td>2 India</td>
<td>2 China</td>
</tr>
<tr>
<td>3 United States</td>
<td>3 Nigeria</td>
</tr>
<tr>
<td>4 Indonesia</td>
<td>4 United States</td>
</tr>
<tr>
<td>5 Brazil</td>
<td>5 Indonesia</td>
</tr>
<tr>
<td>6 Pakistan</td>
<td>6 Pakistan</td>
</tr>
<tr>
<td>7 Nigeria</td>
<td>7 Brazil</td>
</tr>
<tr>
<td>8 Bangladesh</td>
<td>8 Bangladesh</td>
</tr>
<tr>
<td>9 Russia</td>
<td>9 Congo, Dem. Rep</td>
</tr>
<tr>
<td>10 Japan</td>
<td>10 Ethiopia</td>
</tr>
</tbody>
</table>
### Top 10 economies in 2016 and 2050 (GDP at PPPs)

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2050</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>China</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>India</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Japan</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Germany</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Russia</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Brazil</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Indonesia</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>UK</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>France</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>

Sources: IMF for 2016 estimates, PwC analysis for projections to 2050.
The risk of jobs being replaced by automation varies by country

47% of US jobs are at risk from automation, but not all cities have the same job risk
Source: Berger, Frey and Osbourne (2015)

**Least at risk**
- Boston: 38.40%
- Washington D.C.: 38.40%
- Raleigh: 39.70%
- Baltimore: 40.40%
- New York: 40.70%
- Bridgeport: 41.10%
- Toms River: 41.20%
- Richmond: 41.40%
- Minneapolis: 41.40%
- Denver: 41.50%
- San Francisco: 41.70%

**Most at risk**
- Houston: 45.80%
- Sacramento: 45.90%
- Dayton: 46.00%
- Los Angeles: 46.10%
- Harrisburg: 47.10%
- Oklahoma City: 47.10%
- Grand Rapids: 47.90%
- Reading: 48.40%
- Greensboro: 48.50%
- Las Vegas: 49.10%
- Fresno: 53.80%
Climate Change—How Do We Know?

The current warming trend is of particular significance because most of it is extremely likely (greater than 95 percent probability) to be the result of human activity since the mid-20th century and proceeding at a rate that is unprecedented over decades to millennia.

-Nasa.gov/evidence
Climate-Related Disasters

Over the past 20 years climate-related disasters alone have taken a huge toll:

• 1.3 million people killed
• 4.4 billion people injured, rendered homeless or displaced or required aid
• Nearly $2.9 trillion in economic losses from climate related and geophysical disasters

-UN Office for Risk Reduction, 2018
Climate Change

• The impacts of climate change are numerous. Limited natural resources, such as drinking water, are likely to become even scarcer in many parts of the world. Crops and livestock struggle to survive in climate change ‘hotspots’ where conditions become too hot and dry, or too cold and wet, threatening livelihoods and exacerbating food insecurity.

• People are trying to adapt to the changing environment, but many are being forcibly displaced from their homes by the effects of climate change and disasters or are relocating in order to survive. New displacement patterns, and competition over depleted natural resources can spark conflict between communities or compound pre-existing vulnerabilities.
Climate Change

• In 2018, extreme weather events such as severe drought in Afghanistan, Tropical Cyclone Gita in Samoa, and flooding in the Philippines, resulted in acute humanitarian needs. According to the Internal Displacement Monitoring Centre, there were 18.8 million new disaster-related internal displacements recorded in 2017.

• Most disaster displacement linked to natural hazards and the impacts of climate change is internal, with those affected remaining within their national borders. However, displacement across borders also occurs, and may be interrelated with situations of conflict or violence.

-UNHCR, 2019
State of World Food Security and Nutrition

The number of people undernourished in the world has been on the rise since 2014, reaching an estimated 815 million in 2016.

NOTE: Prevalence and number of undernourished people in the world, 2000-2016. Figures for 2016 are projected estimates. SOURCE: FAO.
A Special Moment in History

• We live in a world of great challenges as well as great progress. Most of the challenges are global—as is the progress.

• Some of our challenges are as old as our species:
  o Poverty, poor health, ignorance, addiction, violence and tyranny

• Some are new and quite unprecedented:
  o Environmental crisis, cyberwarfare, threat of nuclear and chemical warfare

• We must ensure that our graduates are prepared for this new world.
Are they prepared?
What College-Aged Students Know About the World: A Survey on Global Literacy

• The Global Literacy Survey, conducted in May 2016 among 1,203 respondents aged eighteen to twenty-six, revealed significant gaps between what young people understand about today’s world and what they need to know to successfully navigate and compete in it.

• The average score on the survey’s knowledge questions was only 55 percent correct, and just 29 percent of respondents earned a minimal pass—66 percent correct or better. Just over 1 percent—17 of 1,203—earned an A, 91 percent or higher.

-Council on Foreign Relations and National Geographic
Survey Questions

Since 2011, the number of Mexicans leaving the U.S. and returning to Mexico has been greater than the number of Mexicans entering the U.S.

- a. True
- b. False
- c. Don’t know

Which language is spoken by the most people in the world as their primary language?

- a. Russian
- b. Mandarin Chinese
- c. English
- d. Arabic
- e. Don’t know

- Global Literacy Survey, Council on Foreign Relations
  Cfr.org/global-literacy-survey
29 percent correctly identified Indonesia, among the countries highlighted below, as the one with the majority Muslim population.

- Global Literacy Survey, Council on Foreign Relations
  Cfr.org/global-literacy-survey
Percentages who correctly identified the countries highlighted below:

- Israel: 31%
- Iraq: 49%
- Iran: 45%
- Saudi Arabia: 61%

- Global Literacy Survey, Council on Foreign Relations
  Cfr.org/global-literacy-survey
### Match Country with Current Issue

<table>
<thead>
<tr>
<th></th>
<th>Brazil</th>
<th>1.</th>
<th>Normalizing relations with the USA</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>Cuba</td>
<td>2.</td>
<td>Ongoing civil war</td>
</tr>
<tr>
<td>c</td>
<td>Germany</td>
<td>3.</td>
<td>Epidemic outbreak of Zika virus</td>
</tr>
<tr>
<td>d</td>
<td>Japan</td>
<td>4.</td>
<td>Settlement of refugees/migrants</td>
</tr>
<tr>
<td>e</td>
<td>South Sudan</td>
<td>5.</td>
<td>Referendum on the EU</td>
</tr>
<tr>
<td>f</td>
<td>United Kingdom</td>
<td>6.</td>
<td>Aging and shrinking population</td>
</tr>
</tbody>
</table>

Percentage who correctly said the United States is bound by treaty to protect the following countries if they are attacked:

- Canada: 47%
- South Korea: 34%
- Japan: 28%
- Turkey: 14%

30 percent correctly identified which branch of the U.S. government (legislative) has constitutional authority to declare war.

How much of your knowledge about global topics and issues comes from the college courses you have taken?

- A great deal………………………………. 11%
- A lot…………………………………….. 17%
- A moderate amount……………………. 34%
- A little…………………………………… 26%
- None at all………………………………. 12%

Respondents ranked importance of knowledge on the topics below.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Extremely Important</th>
<th>Very Important</th>
<th>Moderately Important</th>
<th>Slightly Important</th>
<th>Not at All Important</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current World Events</td>
<td>41%</td>
<td>40%</td>
<td>17%</td>
<td>3%</td>
<td>1%</td>
</tr>
<tr>
<td>U.S. Government and Politics</td>
<td>40%</td>
<td>38%</td>
<td>17%</td>
<td>2%</td>
<td>3%</td>
</tr>
<tr>
<td>Economics and Finance</td>
<td>36%</td>
<td>42%</td>
<td>19%</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>World History</td>
<td>25%</td>
<td>22%</td>
<td>30%</td>
<td>11%</td>
<td>3%</td>
</tr>
<tr>
<td>International Relations</td>
<td>22%</td>
<td>41%</td>
<td>26%</td>
<td>8%</td>
<td>2%</td>
</tr>
<tr>
<td>Foreign (Non-U.S.) Cultures</td>
<td>20%</td>
<td>36%</td>
<td>31%</td>
<td>10%</td>
<td>2%</td>
</tr>
<tr>
<td>Geography</td>
<td>19%</td>
<td>32%</td>
<td>34%</td>
<td>14%</td>
<td>2%</td>
</tr>
</tbody>
</table>

Why Global Knowledge is Essential

• “These survey results come in an era of globalization, when the world is characterized by enormous cross-border flows of everything from people and ideas to weapons and pollutants.

• American citizens are affected in fundamental ways—in legislative bodies, boardrooms, and the environment—by what happens in the world.
Why Global Knowledge is Essential

• All of this makes an educated public essential for American economic competitiveness, national security, and democracy.

• To contend for jobs, assume leadership positions in government and other sectors, and hold elected officials accountable, young people must understand the global context in which they operate as citizens and professionals.

• Yet our survey shows that many individuals educated in this country do not. This constitutes a major national challenge.”
Study Abroad

- IIE estimates that about **10.9 percent of all undergraduate students—and 16 percent of those earning bachelor’s degrees**—study abroad at some point in their undergraduate careers.

- Short term programs increasing: 64.6 percent of all students who studied abroad in 2016-17 did so on summer programs or those that were eight weeks or fewer in length.

- The profile of study abroad students continues to become more racially and ethnically diverse, though is still a long way from reflecting the diversity of enrollment in U.S. higher education, which is about 42% nonwhite. About 29.2 percent of students who studied abroad in 2016-17 were nonwhite, compared to 18.1 percent a decade earlier.

- *Open Doors, 2018, Institute of International Education*
Study Abroad Participation by World Region

- Open Doors, 2018, Institute of International Education
65% of class of 2019 studied abroad ... That further breaks down this way:

- 50% of men and 75% of women studied abroad
- 59% of students of color
- 63% of international graduates
- 60% of first-generation graduates studied abroad
- 46% of science majors studied abroad
- 60% of athletes studied abroad
Internationalization of the Dickinson faculty begins with the hiring process. Given our curricular focus on global education—we offer instruction in twelve foreign languages and roughly half our courses have international content—it’s virtually automatic that most hires have international training and interest.

Once here, faculty have multiple opportunities to enhance internationalization. One key opportunity is the chance to lead a student abroad program. Some of these, such as summer or globally integrated courses that include several weeks abroad, are short term. Others, such as serving as resident director at a Dickinson abroad site, last two years or more.

We make special effort to include in abroad programming faculty from disciplines that are often underrepresented in internationalization, such as the sciences. Approximately 40% of our faculty have led study programs abroad. And, of course, faculty contributions to college global efforts are valued for tenure and promotion and for merit salary increases.
International Student Mobility is Growing—But U.S. Market Share is Decreasing

According to Project Atlas data, since 2001, the number of students pursuing education outside of their home country has more than doubled, from **2.1 million to 5.0 million**, while the U.S. share of this globally-mobile student population dropped, **from 28% in 2001 to 22% in 2018**.

- NAFSA, *Losing Talent: An Economic and Foreign Policy Risk America Can’t Ignore*, May 2019
International Student Mobility is Growing—But U.S. Market Share is Decreasing

NAFSA estimates the combined 10% decline of new international student enrollment—between fall 2016 and fall 2017—cost the U.S. economy $5.5 billion and more than 40,000 jobs.

- NAFSA, Losing Talent: An Economic and Foreign Policy Risk America Can’t Ignore, May 2019
## Top 12 Reasons for Declining International Students Enrollment

<table>
<thead>
<tr>
<th>Reason</th>
<th>Fall 2016</th>
<th>Fall 2017</th>
<th>Fall 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visa application process or visa delays/denials</td>
<td>34%</td>
<td>66%</td>
<td>83%</td>
</tr>
<tr>
<td>Social and political environment in the United States</td>
<td>15%</td>
<td>57%</td>
<td>60%</td>
</tr>
<tr>
<td>Enroll in another country’s institutions (other than the United States)</td>
<td>19%</td>
<td>54%</td>
<td>59%</td>
</tr>
<tr>
<td>Cost of tuition/fees at U.S. host institution (including financial assistance issues)</td>
<td>51%</td>
<td>55%</td>
<td>57%</td>
</tr>
<tr>
<td>Feeling unwelcome in the United States</td>
<td>49%</td>
<td>50%</td>
<td></td>
</tr>
<tr>
<td>Securing a job in the United States after their studies</td>
<td>41%</td>
<td>44%</td>
<td></td>
</tr>
</tbody>
</table>

- NAFSA, Losing Talent: An Economic and Foreign Policy Risk America Can’t Ignore, May 2019
### Top 12 Reasons for Declining International Students Enrollment

<table>
<thead>
<tr>
<th>Reason</th>
<th>Fall 2016</th>
<th>Fall 2017</th>
<th>Fall 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical safety in the United States (e.g., gun violence, civil unrest)</td>
<td>12%</td>
<td>33%</td>
<td>44%</td>
</tr>
<tr>
<td>Enroll in other U.S. institutions</td>
<td>39%</td>
<td>42%</td>
<td>45%</td>
</tr>
<tr>
<td>Changes in foreign government-sponsored scholarship programs (e.g., Saudi Arabia)</td>
<td>41%</td>
<td>41%</td>
<td>42%</td>
</tr>
<tr>
<td>Political and/or economic problems in home country</td>
<td>22%</td>
<td>40%</td>
<td>42%</td>
</tr>
<tr>
<td>Stay home and enroll in their own country's higher education institutions</td>
<td>14%</td>
<td>38%</td>
<td>39%</td>
</tr>
<tr>
<td>Lack of sufficient institutional funding for recruitment and admission of international students</td>
<td>22%</td>
<td>29%</td>
<td></td>
</tr>
</tbody>
</table>

- NAFSA, Losing Talent: An Economic and Foreign Policy Risk America Can’t Ignore, May 2019
Intercultural Competency

• Our community, nation and world are full of people whom we misunderstand, disagree with, disapprove of, and worse: people of different “cultures.”
• America’s polarization is one alarming example of this.
• The divisions are exacerbated by the siloing effect the Internet and geography.
• In spite of this, *our lives in common—and our very survival—require that we be able to cooperate to solve problems and live together in our communities, nation, and world.*
• Working with other humans who differ from us in fundamental ways requires an intercultural skill set that scholars have identified.
• These skills are rarely taught but can be and should be: proven pedagogy exists.
• It starts with inquiry, self-perception and self-knowledge, the basis of a college education.
<table>
<thead>
<tr>
<th>Capstone 4</th>
<th>3</th>
<th>Milestones 2</th>
<th>Benchmark 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Global Self-Awareness</strong></td>
<td>Effectively addresses significant issues in the natural and human world based on articulating one's identity in a global context.</td>
<td>Evaluates the global impact of one's own and others' specific local actions on the natural and human world.</td>
<td>Analyzes ways that human actions influence the natural and human world.</td>
</tr>
<tr>
<td><strong>Perspective Taking</strong></td>
<td>Evaluates and applies diverse perspectives to complex subjects within natural and human systems in the face of multiple and even conflicting positions (i.e. cultural, disciplinary, and ethical.)</td>
<td>Synthesizes other perspectives (such as cultural, disciplinary, and ethical) when investigating subjects within natural and human systems.</td>
<td>Identifies and explains multiple perspectives (such as cultural, disciplinary, and ethical) when exploring subjects within natural and human systems.</td>
</tr>
<tr>
<td><strong>Cultural Diversity</strong></td>
<td>Adapts and applies a deep understanding of multiple worldviews, experiences, and power structures while initiating meaningful interaction with other cultures to address significant global problems.</td>
<td>Analyzes substantial connections between the worldviews, power structures, and experiences of multiple cultures historically or in contemporary contexts, incorporating respectful interactions with other cultures.</td>
<td>Explains and connects two or more cultures historically or in contemporary contexts with some acknowledgement of power structures, demonstrating respectful interaction with varied cultures and worldviews.</td>
</tr>
<tr>
<td><strong>Personal and Social Responsibility</strong></td>
<td>Takes informed and responsible action to address ethical, social, and environmental challenges in global systems and evaluates the local and broader consequences of individual and collective interventions.</td>
<td>Analyzes the ethical, social, and environmental consequences of global systems and identifies a range of actions informed by one's sense of personal and civic responsibility.</td>
<td>Explains the ethical, social, and environmental consequences of local and national decisions on global systems.</td>
</tr>
<tr>
<td><strong>Understanding Global Systems</strong></td>
<td>Uses deep knowledge of the historic and contemporary role and differential effects of human organizations and actions on global systems to develop and advocate for informed, appropriate action to solve complex problems in the human and natural worlds.</td>
<td>Analyzes major elements of global systems, including their historic and contemporary interconnections and the differential effects of human organizations and actions, to pose elementary solutions to complex problems in the human and natural worlds.</td>
<td>Examines the historical and contemporary roles, interconnections, and differential effects of human organizations and actions on global systems within the human and the natural worlds.</td>
</tr>
<tr>
<td><strong>Applying Knowledge to Contemporary Global Contexts</strong></td>
<td>Applies knowledge and skills to implement sophisticated, appropriate, and workable solutions to address complex global problems using interdisciplinary perspectives independently or with others.</td>
<td>Plans and evaluates more complex solutions to global challenges that are appropriate to their contexts using multiple disciplinary perspectives (such as cultural, historical, and scientific).</td>
<td>Formulates practical yet elementary solutions to global challenges that use at least two disciplinary perspectives (such as cultural, historical, and scientific).</td>
</tr>
</tbody>
</table>
Educating for the Future
Some Good News

• A majority of respondents indicated that they believed it important to be knowledgeable about geography, world history, foreign cultures, world events, and other such topics.

• Nearly three quarters (72 percent) said these topics are becoming more important to them.

• Moreover, respondents demonstrated knowledge of certain issues, including the environment: Seventy-eight percent knew that fossil fuels are a nonrenewable resource. Eighty-four percent knew that the increase in greenhouse gases in Earth’s atmosphere caused by the use of fossil fuels is considered by climate scientists to be one of the causes of climate change.
Greater Progress

- We usually focus less on how life is improving for millions of people around the world than on what is going wrong, on the disaster rather than on the scholarship winner.

- We also live in a world of great progress. This is not a naively optimistic view—*it is backed by real data*. A few examples:
  - Since 1990 the number of children in the world who die before their fifth birthday has been cut in half.
  - In 1990 1/3 of the globe lived in extreme poverty—now it is down to one tenth.
CHILDREN DYING
Percent dying before their fifth birthday

44%
1800

2016
4%

1800 1900 2000

Source: Gapminder[6] based on UN-IGME & HMD

Useful education for the common good since 1783
EXTREME POVERTY RATE FROM 1800 TO TODAY

Share of humanity living on Level 1 on less than $2/day.

Dollars adjusted for inflation and price differences.


Dickinson

Useful education for the common good since 1783
LITERACY
Share of adults (15+) with basic skills to read and write


Useful education for the common good since 1783
Useful education for the common good since 1783
The Future

The future we all face is going to require a level of international cooperation and coordination unparalleled in human experience. It will require that the leadership of our society—all the sectors of our society—be able to understand, communicate and work with their fellow humans from all over the globe. Understand their problems and their constraints, their resources and their values, their prejudices, their dreams, and their world views. It will require that our leadership have both the experience and the skills to do this work effectively.

We are the educators of that leadership.

So as we return to our campuses—our extraordinarily important campuses—I suggest that we look at our programs, at our policies, at our courses, and I suggest that we ask ourselves: are we truly preparing our leadership for that future.

And if not, what do we plan to do about it?
Education as a Force for Peace

“Education gives me the wings to fly, the power to fight and the voice to speak.”