Returning to Our Roots, the Research University in a Flat World

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Vice-President for Research
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UCGIS NSF SPACE Workshop
Remote Sensing and GIS Technologies for Undergraduate Curricula in the Social Sciences

July 23, 2006
The University of Oklahoma

Three campuses
- Norman, OKC Health Sciences, Tulsa

30,800 students

2475 faculty

Total annual budget ~$1 billion
- > $240 million sponsored programs
- Private Endowment >$900million

Recent fundraising campaign > $1 billion

Over $850 million in current and recent construction
NSF SPACE workshop - Remote Sensing and GIS Technologies for Undergraduate Curricula in the Social Sciences

Unique approach to the use of both RS and GIS to enrich social science curricula with an integrative understanding of physical, social, and cultural environments

National Context - the growing importance of social sciences
- NIH's new emphases in social and behavioral sciences
- NSF's initiatives in social and environmental dynamics
- President's National Competitiveness Initiative

OU Context -
- Long history of RS and GIS
- Research Campus
- Applied Social Research Strategic Research Initiative
RS and GIS at OU

Enrolment
- RS ~ 40-50 (RS1 25-30 + RS2 + RS3 15-20)
- GIS ~ 80 per year (up from ~40 in 1994)

Disciplines - geography, meteorology, geology, zoology, civil engineering and environmental science, archaeology, public health (epidemiology, environmental and occupational health), petroleum engineering, fine arts, business, economics, sociology, law school, computer science, botany and microbiology, urban and regional planning, and journalism.

Contacted or working with faculty from these disciplines (except for fine arts and journalism), plus communication, psychology, and international area studies.
Places
- My Places
- Sightseeing
- Google Campus
- Grand Canyon
- Colorado River View
- Mount Saint Helens

Layers
- terrain
- roads
- borders
- Populated Places
- Alternative Place Names
- 3D Buildings
- Gas, Food, Lodging
- National Geographic Magazine
- Google Earth Community
- Shopping and Services
- Transportation
- Geographic Features
- Parks and Recreation Areas

Google Earth
- Pointer 35°12'35.67" N 97°26'30.89" W
- elev 1155 ft

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OU’s Research Campus

The Vision – Collocate University (edu), Government (gov, mil), and Private Sector (com, org, net) in a setting that enables and supports interaction and collaborations that produce value-added benefit to each.

‘Connecting the Dots’

A Community of Ideas
A confederation of 12 Federal (NOAA), State, and University of Oklahoma entities
Now employs over 700 professionals – largest group of operational, research and academic meteorologists in the nation
Over $0.5 billion in observational infrastructure, particularly radars and surface mesonetworks
Yearly research expenditures of $65 M
If a private company – top 5% of payrolls in OK
Yearly economic impact of ~$100M (but not economic development)
Oklahoma’s Unique Environment

Largest Academic Meteorology Program In the Nation (.edu)

OU’s Research Campus “Connects the Dots”

Private Industry (.com)

Federal Research and Operations (NOAA, DOD) (.gov, .mil)
Two Partners Place
University of Oklahoma
University Research Campus
Which brings us back to
The Flat World

The World is Flat: A Brief History of the 21\textsuperscript{st} Century, Thomas L. Friedman

- Outsource, Open-source, Offshoring, Supply-Chaining, Insourcing, In-forming
- Dot-com Boom, Dot-com Bust, which was the success?
- America and the Flat World

This is the world our students will live and work in.
This is the world we can and must prepare them for

It is also the world our university will live and compete in
THE PENTAGON'S NEW MAP

New York Times Bestseller

WAR AND PEACE IN THE TWENTY-FIRST CENTURY

THOMAS P. M. BARNETT

“Should be as instrumental for executive leaders as Friedman’s The Lexus and the Olive Tree.”

—Dr. Paul B. Davis, national security expert, Washington, D.C.

“Should be read not only by policy makers and pundits, but by anyone who wants to understand how the world works in the Age of Terror.”

—Sherri Goodman, former Deputy Undersecretary of Defense
The Flat World

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  Untouchables, Quiet crisis

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OU’s Research Campus

The Vision - Connecting The Dots

The University Setting -
- A Meeting Place of Cultures
  - Discipline,
  - Organization
  - Nationality
  - Ethnic....

The Enabling Environment –
- Physical Infrastructure
- Interaction Infrastructure
- Contractual Infrastructure
The University is the Meeting Place
Welcome and briefing for

MG Motors North America, Inc.

T.H. Lee Williams
Vice-President for Research
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July 12, 2006
MG in a Flat World

What Connects

– Birmingham, England
– Nanjing, China and
– Oklahoma (Ardmore, OKC, Norman)

– Via Germany?

Reflect again on the context of this workshop….. use of both RS and GIS to enrich social science curricula with an integrative understanding of physical, social, and cultural environments
OU’s Strategic Research Initiatives

Radar Meteorology
Integrative Life Sciences
Applied Social Research
K20 Education
Two Partners Place
University of Oklahoma
University Research Campus