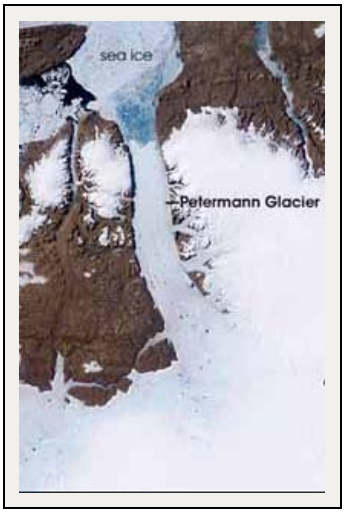
On Research...

Blogging about research issues at Ohio State University

Deluge of data . . .

Posted on September 7th, 2008 by earleholland

Sitting in Jason Box's office one afternoon last month, I remembered how far science has come in recent years. We huddled around his giant computer monitor and discussed how images of glaciers in northern Greenland — 3,200 miles away – differed from those taken the day before.



Box, an associate professor of geography and researcher with the Byrd Polar Research Center, was monitoring how two of the largest – Petermann and Jakobshavn – were eroding in nearly real-time. The changes he's seen convinced him that large chunks of at least one of them will soon break off. [read more here]

Two weeks later, another Byrd glaciologist, Ian Howat, was deciphering images showing how the widespread retreat of glaciers along Greenland's southeast coast is changing our understanding of ice dynamics on the second-largest ice-covered land mass on earth.

Both Box's and Howat's research depends on daily satellite images of Greenland's ice fields. And both of their efforts would have been impossible just a few years before.

What fosters their work, and that of tens of thousands of other researchers, is our newfound ability to capture data in vast amounts and sift through it in ways unimaginable a decade or so ago.

"We need to remember that while things actually are changing rapidly, part of the surprise comes just from our ability to see those changes immediately," Howat says. "In years past, when the information arrived infrequently and with less detail, did similar change happen, but we weren't there to see it?"

If a tree falls in the forest . . .

The sheer volume of data that's available to scientists now is all but immeasurable. Researchers in the life sciences can now "mine" these vast data stockpiles seeking patterns and clues to diseases and living

NAVIGATION

- Home
- About us
- Research Communications Staff

RECENT POSTS

- A graphic misrepresentation . . .
- Of ghoulies and ghosties and long-leggedy beasties . . .
- A cascade of lemmings . . .
- Not what Ben meant . . .
- Of science, baseball, and cricket . . .

SOCIAL MEDIA

- OSU Research News on the Web
- Research News on Facebook
- Research News on YouTube
- StumbleUpon

WHAT WE READ

- Dot Earth — Andrew Revkin/New York Times
- Framing Science
- Health News Review
- Knight Science Journalism Tracker
- Real Climate
- Science News
- Speaking of Research
- The Great Beyond
- The Panda's Thumb
- The Plainspoken Scientist
- TierneyLab
- WiredScience

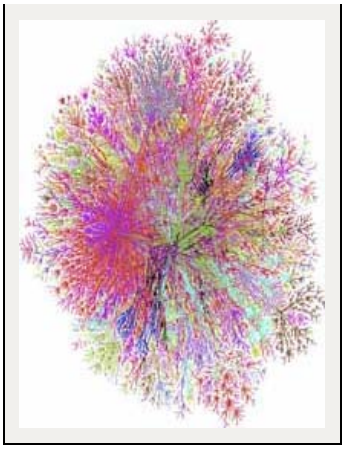
RSS

CATEGORIES

- Climate change
- Environment
- Physics
- Researchers
- Science Communication
- Science policy
- Space
- Uncategorized

ARCHIVES

- February 2012
- January 2012
- October 2011
- September 2011
- August 2011
- July 2011
- May 2011
- April 2011
- March 2011
- December 2010
- October 2010
- September 2010
- August 2010
- July 2010
- June 2010
- May 2010
- April 2010
- March 2010
- February 2010
- January 2010
- December 2009
- November 2009
- October 2009
- September 2009
- August 2009
- July 2009
- June 2009
- May 2009



processes. Colleagues in astronomy and astrophysics can look for similarities across vast stretches of the cosmos in ways impossible before.

And some experts have asserted that it will take decades just to assess the data accumulated so far from past NASA missions, much less the new data that constantly flows in.

Scientific American reported last week that when the latest international atom smasher – the Large Hadron Collider (LHC) – starts work this fall at the massive physics lab at CERN near Geneva, Switzerland, the data flowing from experiments there will fill the equivalent of one DVD (5 gigabytes) ever five seconds. Researchers have amassed a network of 80,000 computers just to handle the flow of data coming from the research.

While science struggles to cope with the growing complexity of its discoveries, the rest of the world seems more and more reticent to accept anything but the simplest of answers to nearly all questions.

What is "the cure" to cancer?

How can we stop global warming?

Civilization has long passed the time for easy answers. We need to accept the complexity of most things we face. Otherwise, we're likely to drown in the data careening our way.__*Earle Holland*

#

Tags: Researchers, Science Communication, Science policy // 2 Comments »

2 Responses to "Deluge of data . . ."

Michael Payday // Sep 8, 2008 at 11:39 am

Right on- it seems the trick these days isn't getting the data, its sorting through it all and trying to make meaning of it. You could say the vast amount of data pouring in will be outdated before any analysis can even take place. Science has really increased its ability to gather data in the last years, but something really must be done to increase our ability to analyze this massive amount of information.

April 2009
March 2009
February 2009
January 2009
December 2008
November 2008
October 2008
September 2008
August 2008
July 2008
June 2008
May 2008

META

Log in
Entries RSS
Comments RSS
WordPress.org

RESEARCH NEWS WEBSITE

Martula // Feb 7, 2009 at 3:55 am

Your blog is interesting! Keep up the good work!

Discussion Area - Leave a Comment

Name (required)

Mail (will not be published) (required)

Website

Submit Comment

« Get Happy! Do things right . . . »