

# "Moving into the cloud"

Cloud computing takes technology towards new industry model

MAX DELISO  
computer writer

Computers are becoming increasingly integrated into our daily lives. The newest and most recent advancement in computing is moving into the 'cloud.' Moving towards cloud computing is the next step in the evolution of personal computing.

The average student today spends a large part of their day either just having used a computer, using a computer, or traveling with the intent of using a computer. Cell phones? Miniature computers with transceivers attached to them. Xboxes? Computers with hardware that has been specialized towards gaming. Toasters? Well they aren't computers at all... yet.

The idea of Cloud Computing is actually very simple [See **Cloud Computing** at right]. It refers to a computer model where all of the 'heavy lifting' is done elsewhere.

In the simplest and most extreme case of this model, a computer user might possess a device, the only purpose of which is to upload instructions to a computer that is "in the cloud," and download the results of previous

uploads. In effect, they would be holding nothing more than a remote control to a more powerful computer, but with all the interface of a normal computer.

The 'cloud' can be thought of as any communications network which enables information transmission, but it is most commonly synonymous with the internet.

A more moderate case of the model is something you've probably seen around campus: a netbook.

Netbooks are simply mobile internet devices, and little else, and they are great examples of the increasing trend towards cloud computing. Although technically they are still independent computers, few would have a use for them if they were not able to connect to the internet. This idea is reinforced by the name they have been given.

What this means for you, the end user, is more and more information and processing being done on a server somewhere, and less and less on your hard drive and local machine.

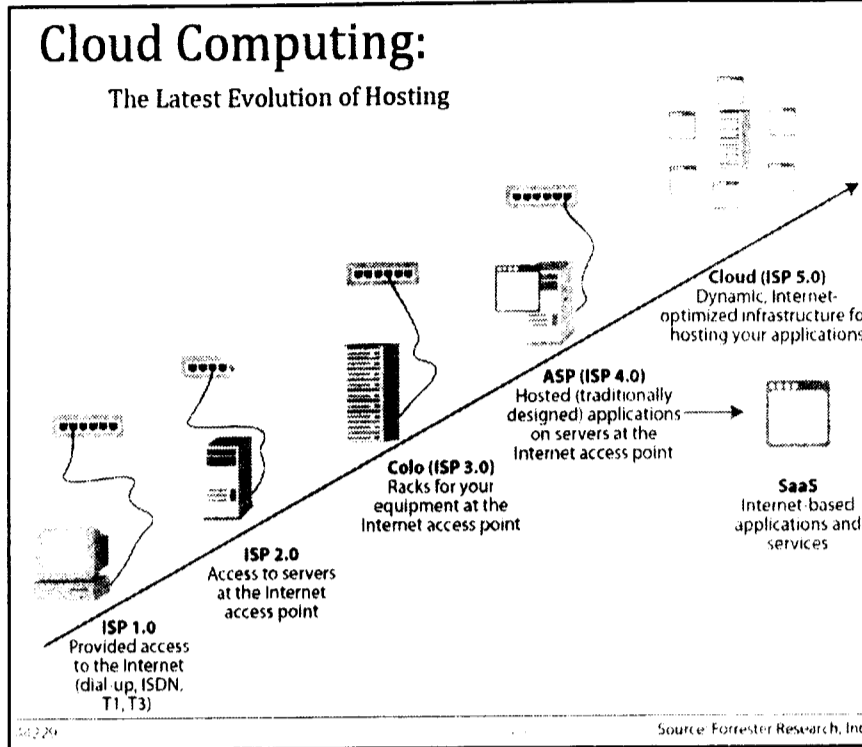
With the continued development of increasingly sophisticated and pervasive wireless networks, it is very likely that personal computers will become less and less powerful themselves, and depend more and more on the 'cloud' for compute resources. As technology steadily marches forward, so do the possibilities for this new way of looking at computers.

Cloud computing is changing the way we think about and use personal computers. By turning computers into

remote processing devices, someone may only own an interface to their 'effective' computer. Computing becomes less expensive and can be paid for on a case by case basis. A variety of new possibilities emerge as a result of this growing trend. It will be interesting to see which of these will become the most important in the coming years.

**Further Reading:**

Want to know more about cloud computing? Tech site [www.infoworld.com](http://www.infoworld.com) has an article further explaining cloud computing and its real-life application. Visit the website and search "Cloud Computing."



Tracy Halmi, a senior lecturer in Chemistry at Penn State Behrend, put on a presentation at the Blasco Library during National Chemistry Week in 2008.

**Top Science News:**

**SPACE**

The largest rings in the solar system have been found around Saturn. This new ring is 128-207 times the radius of Saturn and 2.4 million kilometers thick. The discovery is thanks to NASA's Spitzer Space Telescope, which detected the warm dust's infrared glow. Even though this ring is so large, the particles are so diffused that it is difficult to see with light. "It's so faint you could look right through it," said team member Douglas Hamilton of the University of Maryland in College Park.

**HEALTH**

Pet dogs are becoming the new lab rats in cancer research. Dogs that have cancer are now entitled to test experiment cancer treatments before humans. Already, there have been 12 trials that show good results. Scientists believe dogs are a better animal to test drugs on because unlike lab mice, who maintain a consistent lab environment, dogs experience cancer in a closer way to humans.

**ENVIRONMENT**

The legendary biodiversity of Madagascar is under threat due to criminal organizations that have taken advantage of the lack of government. Since the President was forced to resign in March, much of the foreign aid has been withdrawn and biologist and conservationist have seen groups of criminals come in and strip the countries beautiful forest of both plant and animal diversity.

**Scientist of the Week:**

Albrecht Von Haller

This Swiss biologist was a large contributor to physiology, anatomy, botany, embryology, poetry, and scientific bibliography. He was the first scientist to recognize the autonomous function of the heart as well as how respiration works. He used his knowledge to write description of embryonic development as well as anatomical descriptions of genitals, the brain and the heart.

**Upcoming Math Events:**

**TUESDAY, OCT. 20**  
3:30 P.M.

Speaker: Dr. Joseph Previte  
Presentation: The Distance Between Two Partitions

**THURSDAY, OCT. 29**  
2:30 P.M.

Speaker: Dr. Amos Ong  
Subject: The finite group GL(3,2)

**TUESDAY, NOV. 3**  
3:30 P.M.

Speaker: Dr. Kevin Drees (unaffiliated speaker)  
Subject: A Nagata-like Theorem for Cp(X,Z)

**TUESDAY, NOV. 10**  
3:30 P.M.

Speaker: Dr. Matt Clay - Allegheny College  
Subject: TBD

**TUESDAY, NOV. 17**  
3:30 P.M.

Speaker: Dr. Emily H. Sprague - Edinboro University of Pennsylvania  
Background: An application of uniform integrability

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# Chemistry Week brings events to Behrend

MARIE EBNER  
chemistry writer

National Chemistry Week is upon us again! This year's events and activities, scheduled from Oct 18-24, are based upon the theme "Chemistry- It's Elemental." The activities will highlight the elements as we use them in our daily lives as well as celebrate the 140th anniversary of the creation of the periodic table of the elements by

Dmitri Mendeleev. The elements, as many have learned in their general chemistry classes, not only make up all of the chemical components that we come in contact with but make up ourselves! We also come in contact with individual elements in our daily lives. They can be seen everywhere: from the graphite made of carbon sheets that you use to take all of your wonderful chemistry notes, to the millions of pennies made of

copper that you pay for your lovely chemistry class each semester, to the aluminum cans full of energy drink that help you get through it all.

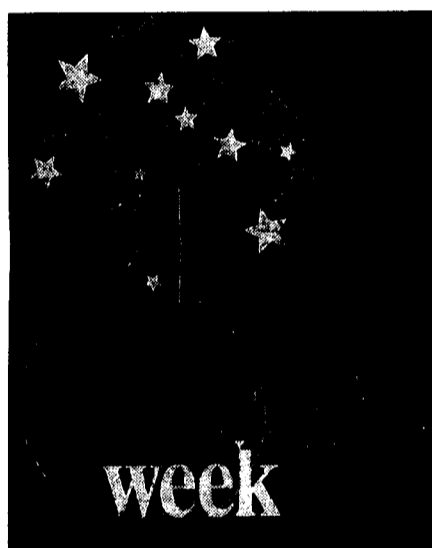
These National Chemistry Week events are sponsored by the American Chemical Society and are organized and designed by the Committee on Community Activities. The program chair for National Chemistry Week at the national as well as local level is Tracy A. Halmi, senior lecturer here at Penn State Behrend. Halmi has been the national program chair for a total of three years, and the local chair for a total of ten years.

The committee not only organizes the events but creates annual themes for national chemistry week such as the "Chemistry-It's Elemental" theme this year and previous themes such as "Having a Ball with Chemistry" and "The Joys of Toys."

The local chapter of the American Chemical Society will be sponsoring three events within our Community. These events are made possible by the local section of ACS as well as volunteering students and faculty from not only Penn State Behrend, but also Allegheny College, Edinboro University, Gannon University, Mercyhurst College, and University of Pittsburgh at Titusville.

All of the activities will be "kid-friendly" element based activities such as showing that by touching a penny, you are actually touching an element, and there will be free museum admission during the event hours courtesy of the John Nesbit Rees and Sarah Henne Rees Charitable Foundation. Available at each of the events is a free hands on activity newspaper which revolves around the theme of the year, elements. It includes puzzles for kids, at home experiments, and an article on the Elemento Chemistry Card Game for kids.

The really dangerous, fire-ball making, you-should-not-try-this-at-home experiments will be shown during the Behrend-Exclusive Demo Show put on by the Chemistry Club on Wednesday, October 21 in 101 OBS at 7:00 p.m. Chemistry Club will also be sponsoring the painting of the glass win-



**National Chemistry Week events**

**Monday, Oct. 26**

**What:** Halloween-themed chemistry demonstrations  
**When:** 6:30 p.m.  
**Where:** Blasco Library

**Saturday, Nov. 21**

**What:** Hands-on, element-based chemistry activities  
**When:** 10:00 a.m. to 1:00 p.m.  
**Where:** EXPERIENCE Children's Museum, 420 French St. Erie

**Wednesday, Oct. 21**

**What:** Demo Show for Behrend students  
**When:** 7:00 p.m.  
**Where:** 101 OBS

dows of Otto Behrend Science (OBS) Building for National Chemistry Week with the names of the elements, as they do every year. Given this year's theme, though, the event carries its own special significance.

Elements impact our daily lives by making it possible; make sure to stop by one of the National Chemistry Week events to learn just how important they are to you.



contributed photo

Tracy Halmi, a senior lecturer in Chemistry at Penn State Behrend, put on a presentation at the Blasco Library during National Chemistry Week in 2008.

**OUR DISCOVERIES**

Science reporters with the Behrend Beacon.

Every year for a decade, employers have rated communication skills as their biggest priority in new recruits.

What are YOU doing to set yourself apart?