The Computer Science department, together with the departments of Physics, and Mathematical Sciences is pleased to announce that we have designed and developed a new bachelor of science degree program in the new field of Digital and Optical Science.

The program, offered jointly by computer science, physics, computer science, and mathematics courses selected to give the student a solid understanding of the field. Courses include image processing and fiber optic communication topics in addition to a solid foundation in mathematics, physics, algorithms, and data and file structures, so students are not limited in what they pursue upon graduation.

In the past 15 years, developments in optics and computation have lead to a new field that combines both. Digital and optical processing of signals is now a vital aspect of science and commerce. Our proposed program prepares students for jobs and graduate study in this field.

Interested students wishing to declare this as a Special Studies major or just wanting more detailed program-related information may contact Dr. Joan Calvert, at calvert@ccsu.edu. We encourage you to give this exciting course of study serious consideration!

As a CCSU CS—Honors student graduating this spring, I will have to say that my 3 years at CCSU were enjoyable. The CS faculty are always free to answer any questions that might be inquired and the classes for the Honors track give a good explanation to the theory of computer science. In retrospect to the degree itself, I thought that the degree was well balanced and gave the students a fundamental knowledge of programming that would increase the efficiency of learning new languages. In today’s ever changing world of technology and programming we must be able to adapt or we'll become obsolete. The CS Honors program has taught the ability to adapt and become marketable to businesses who are looking for universal programmers. I highly recommend the CS Honors program at CCSU for those who want to learn the universal similarities of understanding code regardless of the language being used.

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**Optical Science**

The program, offered jointly by computer science, physics, and mathematics includes 70 hours of physics, computer science, and mathematics courses selected to give the student a solid understanding of the field. Courses include image processing and fiber optic communication topics in addition to a solid foundation in mathematics, physics, algorithms, and data and file structures, so students are not limited in what they pursue upon graduation.

In the past 15 years, developments in optics and computation have lead to a new field that combines both. Digital and optical processing of signals is now a vital aspect of science and commerce. Our proposed program prepares students for jobs and graduate study in this field.

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FEATURED FACULTY - Professor Robert White

Professor Robert White, anglicized from the Acadian LeBlanc, is currently a part-time instructor for the Computer Science department. He brings with him many years of experience in teaching, programming, and art. We are very fortunate that he has brought his expertise to our department by instructing our CS 207 – Introduction to Computer Graphics course. While attending this course, students are required to produce documents incorporating abstract designs and images with the aid of ArcSoft PhotoStudio software. Displayed are a few examples of students’ creativity.

Rob, has many other interests that include writing short stories, sculpture and painting, photography, and genealogy. Two of his sculptures have been on display at the Science Center at Wesleyan University for over 10 years. Rob’s works have also been on exhibit at Ringling School of Design in Florida, the main concourse at Bradley International Airport, Wesleyan’s Zilka Gallery, The DFN Gallery in New York City, and Gibbs Science Lab at Yale University. During the exhibit on “Art in Science --Science in Art” his sculpture, “The Cellars of Cosmic Manipulation” was on display in Budapest at the Hungarian Museum of Art (Kiallitott muvek). Rob’s sculpture “City of Glass” was featured on the cover of the Wesleyan Alumni Magazine. He regularly exhibits at the NOMA gallery in Middletown and through local distributors such as Datura, A New Page, Record Express, Buttonwood Tree and others. Rob was part of a local task force who created the Mountain Laurel Sudbury School presently in operation in New Britain. Rob’s children’s tales, “Time Enough For All,” are read in the Scandinavian Schools. You can read some of his stories, as well as view his photography and journals, by going to http://www.wesleyan.edu/av/gronican.htm

New Chair of Connecticut Section for IEEE

Brian M. O’Connell, Associate Professor of Computer Science and Philosophy has been elected chair of the Connecticut Section of the Institute of Electrical and Electronics Engineers (IEEE) for the 2006 term. The Connecticut IEEE is comprised of over 3,000 engineers working in industry, research and academics. It is active in the fields of professional education, fostering student awareness of engineering careers and maintaining a public dialogue about engineering and technical issues with the public. The IEEE consists of more than 350,000 members in 40 countries and is the leading authority in technical areas ranging from computer engineering, biomedical technology and telecommunications, to electric power, aerospace engineering and consumer electronics, among others.
Perhaps a group of friends have decided to go to a city that they’ve never been to before, and along the way want to find a restaurant where they could get a meal. If someone in the group has had the foresight (and, really, who thinks about things like this beforehand?) to locate a restaurant and can guide the group there, everything’s all set. If not, it can take quite a while to find somewhere that will suit the palates of the entire group. Wouldn’t it be much easier if they could just call a number, say where they are and what type of food they’re looking for, and be given directions from where they are now to the restaurant of their choosing?

Under the benevolent guidance of Dr. Stan Kurkovsky, this is exactly the kind of project that has been underway over the past semester.
Sources of Personal Privacy

Edward H. Freeman

In a 1981 episode of the classic situation comedy *Taxi*, Louie Di-Palma, the comically repulsive dispatcher, was apprehended spying on the female cab drivers through a peephole into the Ladies Room. Louie was quickly fired from his job. In a story that could only occur in a sitcom, he was rehired before the final commercial.

Throughout *Taxi’s* run, Louis was a thoroughly detestable character (within the confines of television comedy, of course). As the petty despot of the decrepit garage, he stole from his employers, extorted money from the cabbies and performed countless acts of trivial churlishness. This episode was the only time that he lost his job. He was only able to get it back by begging and ultimately telling of a time when his own privacy was violated.

Our society has developed a strong sense of privacy and the limits of acceptable behavior in our relationships with others. Louie’s actions caused the female cabbies no physical injuries or financial loss. Their reputations were not compromised in any way. If he had not been "caught in the act," they would not even have been aware of the violation. Yet, his actions as a Peeping Tom were considered so vulgar that his position was terminated.

We live in an age where the Internet and databases provide a real threat to these basic rights. These issues are very complex and controversial, with the legitimate needs and desires of various groups and individuals often in direct opposition. To resolve these conflicts, an understanding of the human needs and history of privacy is essential.

THE NEED FOR PRIVACY

Privacy is one of many abstract, conceptual terms that defy simple definition. The classic definition, as outlined in an 1890 law review article, states that individuals have “the right to be let alone.” Privacy is the expectation that individuals have in maintaining a personal space, free from outside interference. Information told in confidence should not be disclosed to others. Disclosure may cause embarrassment and emotional distress to a person of reasonable sensitivities. “Privacy, as a whole or in part, represents the control of transactions between person(s) and other(s), the ultimate aim of which is to enhance autonomy and/or to minimize vulnerability.” Privacy has always been present in human development. All early societies had some level of privacy, with different levels of emphasis.

Why do people feel that there is a need and a right for privacy? In a 1980 law review article, Ruth Gavison defines privacy as an integral aspect of the human need for control of one’s life. Control suggests that the important aspect of privacy is the ability to choose it and see that the choice is respected. All possible choices are consistent with enjoyment of control, however, so that defining privacy in terms of control relates it to the power to make certain choices rather than to the way in which we choose to exercise this power.

Privacy needs are constantly changing. Faced with a personal problem, an individual may choose to share his feelings with a close friend, psychiatrist or spiritual leader. He may even turn to a complete stranger (i.e. a bartender in a strange city).

It is precisely the right to control who knows what that makes privacy a fundamental part of our liberties. If we lose the basic ability to choose when to remain private and when to talk to others, we cannot exercise many other basic freedoms. Without this level of control, we have lost our fundamental constitutional rights to decide personal situations for ourselves.

SOURCES FOR PRIVACY LAW

The development of privacy rights has been a slow and deliberate (cont’d page 5)
process reaching back thousands of years. Numerous writings have formulated these rights.

**Biblical Law** - The foundations for the legal recognition of privacy and the boundaries between the public and private realms of social lives date back to Ancient Greece. Such rights are also recognized in the Mishnah, the code of Jewish law compiled in the second Century of the Common Era. The Mishnah (Baba Batra 3:7) states:

*In a shared courtyard, a man should not build a door facing another person’s door nor a window facing another person’s window. If it is small, he should not enlarge it.*

**De May v. Roberts** - In 1880, Dr. John De May attended the birth of Alvira Roberts’ fourth child in rural Michigan. Dr. De May brought Alfred Scattergood, an unmarried jeweler and watch repairman, along to the birth. Mrs. Roberts thought that Scattergood was a medical student or medical assistant. In truth, he was an unmarried jeweler and watch repairman. When Mrs. Roberts learned the truth, she sued De May and Scattergood. Despite their claims that they should not be found liable for acts “involving solely the question of taste or propriety”, a jury awarded Mrs. Roberts $5,000.

De May and Scattergood appealed the decision to the Michigan Supreme Court. The court affirmed the jury’s decision. Mrs. Roberts "had a legal right to the privacy of her apartment at such a time, and the law secures to her this right by requiring others to observe it, and to abstain from its violation.**De May** is generally considered the first United States case where the right to privacy was mentioned explicitly. It was also the first case to award damages for violating that right. De May was decided when privacy was becoming an established right and a legal concept.

*The Right to Privacy* - In Boston during the 1890’s, Mrs. Samuel D. Warren, a leading local socialite, was considered an outstanding party hostess. Before long, the local newspapers began printing her guest lists and descriptions of her décor and food. On different occasions, the *Saturday Evening Gazette* reported that Mrs. Warren had given a dinner party for 12 friends and that she and her husband had transformed their home into a “veritable floral bower” for a wedding breakfast for his cousin.

The Warrens, both of whom came from politically prominent families, were outraged at the intrusiveness of the Boston press. Samuel Warren, a respected attorney, asked his friend and former law partner, Louis D. Brandeis (later a Supreme Court judge), to write an article on privacy with him. The article appeared in the Harvard Law Review in 1890. It is generally credited with creating the “right to privacy” and, consequently, the right to sue for “invasion of privacy.”

In their article, Brandeis and Warren stipulated that individuals have the “right to be let alone.” For the first time, legal scholars advanced an articulate legal theory to meet the threats of new technology. Their theory of privacy rights

(Cont’d page 6)
evolved from the common law, developed over centuries. Common law protected a person not only from the physical attack on his life and property but also from intangible attack as well.

Warren and Brandeis recognized that an increasingly technical and intrusive society would require new protections for privacy. They also realized that invasion of privacy would usually cause emotional harm rather than physical injury, but argued that the damage was just as serious and should be compensated through legal action.

Courts soon began to accept Warren and Brandeis's arguments and the legal right to privacy was born. In 1905, a Georgia court held that the unauthorized use of a person's photograph for commercial purposes was a violation of a person's privacy interest. By 1947, only nine jurisdictions recognized a common law right of privacy. Progress was sometimes slow until the 1960's, but the article first established the concept of privacy as a legal principle.

**Griswold v. Connecticut** - In this landmark case, the Supreme Court finally recognized a constitutional right to privacy. A Connecticut statute made it a crime to use or counsel anyone in the use of contraceptives. A New Haven doctor and the executive director of the local Planned Parenthood had been arrested, and each fined $100, for counseling married couples regarding birth control.

Most of the justices in Griswold concluded that the Constitution provides a fundamental right to privacy, which in turn includes the right to decide whether to use contraceptives. The only way to enforce such a statute was to "allow the police to search the sacred precincts of marital bedrooms for tell tale signs." Justice William O. Douglas found that the spirit, structure and specific provisions of the Bill of Rights created "zones of privacy" which are broad enough to protect aspects of personal and family life.

**CONCLUSION**

History has shown that new technology brings on new concerns for maintaining and protecting our privacy rights.

From anywhere in the US, anyone can call into our system and, after stating their zip-code and selecting a type of cuisine, find out what restaurants are in the area, as well as get directions to the restaurant of their choice. Using the VoiceXML service from the BeVOCAL Café (located at http://cafe.bevocal.com), as well as some PERL scripts on a private server, we have been able to set up an interactive system that can be easily used as a template to allow for a user to search for just about anything in the given area (hotels, theatres, etc.), with very little modification.

At the moment, we are polishing up the system by adding more user-friendly prompts and features, as well as conducting usability studies with human subjects.
The library at CCSU is abundant in resources for Computer Science students to utilize. Among the resources is the ACM Guide to the Computing Literature. This Guide is a collection of more than 750,000 citations from major publishers in computing, including ACM. Please note: This “free” version has basic search and browse functions only. Also available to access is ArXiv, which is an e-print service in the fields of physics, mathematics, non-linear science, computer science, and quantitative biology that is owned, operated and funded by Cornell University and is partially funded by the National Science Foundation. 

Encyclopedia of Information Science and Technology is an online version of the five-volume encyclopedia including more than 550 articles highlighting current concepts, issues and emerging technologies. These articles are enhanced by special attention that is paid to over 5,000 technical and managerial terms. Topics covered include data mining, distance education, database design, ERP, E-commerce, global information technology, knowledge management, and web applications and usability. Applied Science and Technology Abstracts contains coverage of more than 560 core English-language, scientific and technical publications. Topics include engineering, acoustics, chemistry, computers, metallurgy, physics, plastics, telecommunications, transportation, and waste management. Indexing spans from 1983 to the present. CiteSeer is a scientific literature digital library and search engine that focuses primarily on the literature in computer and information science. The newest additional resource is the IEEE Computer Society Digital Library. This library provides online access to 22 society magazines and transactions, and more than 1,700 selected conference proceedings.

Be sure to tap into all the resources the CCSU library has to offer. Most applications have off-campus access.

The CCSU Computer Club meets in the Computer Projects Laboratory in room 314 of the Maria Sanford Hall. The club hosts a variety of activities including the Wiki web server, a Linux gaming server, and free student web hosting. If you are interested in joining the Computer Club you can contact one of the following people for more information:

President: Robert Quast  
quastr@ccsu.edu
Vice President: Adam Sharp  
sharp_adp@ccsu.edu
Treasurer: Conrad Akier  
school@akier.net
Secretary: Andrew Sotzing  
sotzinganj@ccsu.edu
Advisor: Brian O’Connell  
oconnellb@ccsu.edu

Home computers are being called upon to perform many new functions, including the consumption of homework formerly eaten by the dog. ~Doug Larson

Notable Web Sites

Check these out!

* Research with the use of computers:  
* Computer discoveries & innovations:  
* Computer Ethics:  http://www.cpsr.org/
The Gamma Chapter of Upsilon Pi Epsilon at Central Connecticut State University

The Gamma Chapter of Upsilon Pi Epsilon Honor Society at CCSU held their induction ceremony on Friday, April 28, 2006. New members to the Honor Society include: Daniela S. Hristova; David A. Maddock, Jr.; Ronald L. Packard, Jr.; and Andrew J. Sotzing. To be eligible to join UPE you must be a Computer Science Major and maintain a grade point average of 3.5 or greater. For more information about UPE contact Dr. Rathika Rajaravivarma at rajaravivarmar@ccsu.edu.

Distinguished Honors in Computer Science

Congratulations to all the Computer Science Majors who have maintained a grade point average of 3.5 and higher.

CS—Honors Program
Steven Bazinet
Anthony DeCusati
Justin Gatzen
Daniela Hristova
Devin Krevetski
Andrew Sotzing

CS—Alternative Program
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