NEWS MEDIA COVERAGE REDUCES PANDEMIC IMPACT

John Toon
Research News & Publications

At the first sign of a disease pandemic, public health officials should begin strongly communicating about the extent of the outbreak and the steps that can be taken by the public to avoid infection. That’s the recommendation of two mathematical biologists who have modified the most widely used infectious disease transmission model to account for the impact of news media coverage.

During outbreaks of serious infectious diseases, many individuals closely follow media reports and as a result, take precautions to protect themselves against the disease. These precautions may include staying home, getting vaccinated, avoiding crowds, using disinfectants, canceling travel plans and wearing face masks.

Known as “self-isolation,” these precautions can significantly reduce the severity of an outbreak, according to mathematic modeling done by researchers at Georgia Tech and Marshall University.

“The more forcefully the media provides information about pandemic infections and deaths, the more the total number of infections is reduced,” said Howard Weiss, a professor in the University System that has taken more than $600 million in cuts to its state budget appropriation over the past two years is difficult to understand. We are continuing to discuss this issue with members of the Board of Regents to try and understand the rationale for this proposal.”

The discussion appears to center on whether the state is graduating enough engineers to fulfill Georgia’s workforce needs. In his experience, College of Engineering Dean Don Giddens says the data suggests industry demand is being met.

“The engineering workforce needs of Georgia are very important to the economic development of the state, and Georgia Tech has been pleased to be the primary provider of engineering graduates within the University System,” Giddens said. “However, our data indicates that Tech is providing enough engineers to meet state needs.”

Accepting the premise that more engineers are needed, a more practical approach, he reasoned, might be expanding existing programs such as the Regents’ Engineering Transfer Program or the Georgia Tech Regional Engineering Program in Savannah that have proven to be successful, alternate paths for students who were not accepted to Tech as freshmen yet want an engineering degree.

“Engineering is an expensive program, due to the requirements for laboratories, computing facilities, competitive faculty salaries and start-up needs,” he said. “No institution in the System, other than Georgia Tech, can add a quality and accredited engineering program without significant new investments.”

In addition, Giddens noted the University of Georgia has offered five engineering degree programs since 2005, disciplines outside of Tech’s core strength.

“These would seem to form the basis for growth in research areas where they are already strong — rather than branching into areas where Georgia Tech excels,” he said. “In these economic times, continued investments in Georgia Tech as the prime engineering college in Georgia would seem the wisest course of action.”

The conversation is ongoing, Peterson said, but remains a pressing issue.

“I am very aware of how emotional this issue is for many in our community, particularly those who have invested so much of themselves into making Georgia Tech one of the best technological universities in the world. I want to assure everyone with a passion for Georgia Tech — this issue is a foremost priority for me and my leadership team.”
Tech earns Governor’s Cup for its participation in Charitable Campaign

George Tech and Khalifa University of Science, Technology and Research (KUSTAR) have formalized their partnership to develop cutting-edge engineering-based education and research initiatives in the United Arab Emirates (UAE) and the United States.

The two institutions signed a Memorandum of Understanding (MOU) at a ceremony held in Abu Dhabi, UAE, on September 20. The agreement focuses on developing joint educational programs, research opportunities and joint educational programs.

The agreement, which is valid for an initial period of five years, will cover the bilateral exchange of information and experience in education and research and to explore opportunities for submitting proposals for joint projects. This includes integrating content for course material, identifying joint collaborative research projects between faculty and/ or research groups and offering world-class lectures or seminars provided by both institutions.

“Georgia Tech and KUSTAR announce partnership

The agreement between Georgia Tech and KUSTAR is intended to provide a framework for exploring KUSTAR-sponsored research, cooperative joint research opportunities and joint educational programs.

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Institute

New Laser Safety Protocols Announced

Georgia Tech’s Department of Environmental Health and Safety, through its Office of Radiological Safety, is pleased to announce the implementation of the Institute’s newly revamped Laser Safety Program for Class 3B and Class 4 lasers.

The program’s primary objective is to provide guidance on the safe use of Class 3B and 4 lasers for all Georgia Tech faculty, staff and students. Unprotected exposure to emissions from either of these lasers can result in serious eye injury. In addition, Class 4 lasers pose a potential fire hazard, and there are multiple collateral hazards including electrical shock and chemical exposures.

Georgia Tech’s current inventory of 450 Class 3B and 4 lasers reflects a wide variety of lasers being used — in applications from precision machining of materials to high resolution laser spectroscopy — spread among 17 departments across 20 campus buildings.

Georgia Tech’s Laser Safety Officer (LSO), Gary Spichiger, along with a newly established Laser Safety Committee, chaired by School of Chemistry and Biochemistry Senior Research Scientist John Nicovich, developed a Laser Safety Policy Manual and an online Laser Safety Training course, both of which adhere to nationally recognized standards. The Office of Radiological Safety has been meeting with the appropriate school chairs to discuss implementation of the program. “Our objective with this Laser Safety Program is to ensure the safe set-up and use of Class 3B and 4 lasers at Georgia Tech, while minimizing any impact to research activities,” said Mark Demyanek, assistant vice president of Environmental Health and Safety.

Georgia Tech will hire an outside consultant to work with the LSO, verifying the laser inventory and conducting hazard assessments. The inventory and hazard assessments will be conducted on a department-by-department basis and will focus primarily on labs containing both Class 4 and 3B lasers. Labs containing only Class 3B lasers might be deferred to a later round of assessments. The verification and testing phase is expected to begin later this fall.

All laser documents, including registration forms, the Laser Safety Policy Manual, and the online Laser Safety Training, can be accessed at www.ors.gatech.edu/laser. Spichiger can be contacted at 404-894-8847 or gary.spichiger@ehs.gatech.edu for additional information.

Season Pass Gives Students Access to City’s Cultural Institutions

A recent agreement between Georgia Tech and the Woodruff Arts Center will offer all students unlimited access to some of the city’s finest cultural institutions. The best part: it’s only 20 bucks.

The Georgia Tech Student Season Pass will provide access to each of Woodruff’s three divisions: the High Museum of Art, Alliance Theater and Atlanta Symphony Orchestra. Cardholders will also have the option to purchase a single companion ticket at a special discount rate.

Woodruff Arts Center CEO Joe Bankoff said the expanded relationship with Georgia Tech is a natural expansion of their arts education mission. “There is a clear and proven connection between involvement in the arts and academic achievement,” he said. “As educators we’re always looking for ways to enrich the student experience, and we believe this is an opportunity to do just that.”

The Division of Student Affairs and Student Government Association negotiated the agreement over the summer in an effort to encourage more participation in Atlanta’s arts community. Students may purchase their annual pass at the Georgia Tech Box Office, located on the second floor of the Student Center.

“As educators we’re always looking for ways to enrich the student experience,” said Bill Schauer, vice president for Student Affairs. “We see this partnership with the Woodruff Center as an investment in student life beyond the classroom.”

“There is something very powerful that can occur at the intersection of the arts and sciences,” said Corey Boone, undergraduate student body president. “This affords our students an opportunity to explore the great city of Atlanta, witness historic performances by Tony and Grammy award-winning artists and experience artistic expression from around the world. I couldn’t be happier about this program.”

Participating students will be able to reserve tickets for performances or museum visits via a website. The Woodruff Arts Center will also host three Georgia Tech events during the course of the academic year, including one planned for the evening of Thursday, September 30.

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School of Mathematics. “Media coverage also reduces the maximum number of infections at any particular time, which is important for allocating the resources needed for treating infectious diseases.”

The benefit of publicly reporting disease outbreaks seems obvious, but public health officials in the United States have a policy of regularly communicating with the news media about such incidents. But according to Weiss, not all world governments choose to communicate so well — and nobody had used rigorous mathematical techniques to study the impact of that communication before.

The sooner the media coverage of a pandemic begins, the fewer individuals will ultimately be infected. But Weiss said the model shows that almost any media coverage is helpful in reducing the extent of a pandemic.

“Telling the public always helps, but the longer you wait, the less it helps,” he said. “If you wait long enough, the effect of media coverage is essentially negligible.”

In the case of pandemics that occur over a long period of time, regular coverage by the news media may be required to maintain a lower infection rate.

Weiss acknowledges that strong communications about such dreaded diseases as Ebola could create public panic. In those rare cases, public health officials will have to weigh the benefits against the risks.

“In general, our advice to public health officials anywhere in the world is not to hold back,” he added. “They should get out the news about infectious disease outbreaks loudly and quickly. It’s clear that vigorous media reporting can have a substantial effect on reducing the impact of an outbreak.”

In his research, Professor Howard Weiss notes, “The more forcefully the media provides information about pandemic infections and deaths, the more the total number of infections is reduced.”

www.ors.gatech.edu
‘A True Plant Person’ Tends to Campus Flora

DAN TREADWAY
COMMUNICATIONS & MARKETING

Donna Chronic is one of three horticulturists charged with keeping the Tech campus lush and beautiful. A 25-year employee of the Institute, Chronic was the only campus horticulturist for many years. Her knowledge of the campus landscape is unparalleled.

Describe your primary responsibilities as a Georgia Tech horticulturist.

I perform supervisory work in the installation and maintenance of campus grounds. This involves training and working with a group of individuals who pick up litter, prune shrubs, plant flowers, put out mulch, spray weeds and perform a variety of daily landscape tasks. I am also responsible for designing landscape renovations and annual color plans, developing and implementing spray and fertilization programs, reviewing architectural plans and providing recommendations on plant selection. This requires involvement with the Facilities landscape architect, the campus master planner, outside contractors and landscape architects.

How is the role of a horticulturist on a university campus different from what it would be in other contexts?

That’s simple—it’s students. Working on a college campus provides a unique opportunity for a horticulturist. Not only do we have a beautiful environment to work in, but there is also a lot of energy and excitement around you. Some type of event is always occurring, and it often is outside on the campus grounds. A horticulturist could always work for a large college campus provides a unique opportunity for a horticulturist. Not only do we have a beautiful environment to work in, but there is also a lot of energy and excitement around you. Some type of event is always occurring, and it often is outside on the campus grounds. A horticulturist could always work for a large college campus provides a unique opportunity for a horticulturist. Not only do we have a beautiful environment to work in, but there is also a lot of energy and excitement around you. Some type of event is always occurring, and it often is outside on the campus grounds. A horticulturist could always work for a large college campus.

Were your parents or other family members interested in the field?

No one else in my family has pursued horticulture as a profession, but I definitely was influenced early on. I grew up in south Florida and our back yard was a tropical paradise. We had all kinds of citrus in our back yard as well as avocados, mangoes, bananas and papayas. My grandfather taught me how to appreciate growing vegetables and how great a homegrown tomato could taste. In college I gravitated toward the biological sciences, but I still had a creative flair. A career counselor suggested I explore the College of Agricultural, and ornamental horticulture turned out to be a perfect match for me.

How extensive are your horticultural activities at home?

This is the one question that makes me laugh. If you have ever met a true plant person, you would know that the answer to this is my horticultural activities at home are extensive. Of course, I maintain a vegetable garden throughout all seasons, winter included. This summer I also joined the new Henderson Park Community Garden. I have designed and installed landscapes for Atlanta Habitat for Humanity for more than 13 years, gone on native plant rescues with the Georgia Native Plant Society, volunteered with the Southeastern Flower Show and still try and take classes on occasion at the Atlanta Botanical Garden. My yard is by no means a showpiece. I frequently experiment with unusual plant species and plant combinations. The successful ideas are then often transferred to campus landscapes.

Is there anything else you’d like to mention?

Having been at Georgia Tech for more than 23 years, I am often the lucky one who is interviewed, but Landscape Services is composed of a very diverse group of employees who take care of all aspects of the campus landscape. Our group installs and repairs irrigation, sweeps the streets and parking lots, repairs steam lines and brickwork as well as all of the other tasks normally associated with landscaping. They are a hardworking group who work outside on hot, humid summer days, during thunderstorms and even on our snow days. Just imagine what it is like to clean up after one of the Georgia Tech football games.

Marilyn Somers works to endow Tech’s Living History Program

After sixteen years of documenting the stories of nearly 800 Tech alumni and friends—and serving as a passionate advocate for the program she founded to tell those stories—Marilyn Somers is “putting her money where her mouth is.”

Somers, who serves as director of the Georgia Tech Living History Program, has made a retirement plan provision in her will to establish the Georgia P. Burnell Living History Endowment Fund. Founded in 1994, the Living History Program collects, preserves, and presents the history of Georgia Tech by recording on video the life stories of Georgia Tech alumni, friends and employees. Those videos are transcribed, archived and made available for research and the production of documentaries. The earliest story in the collection is from a 1915 alumna who at 100 years of age happily sang “Ramblin’ Wreck.”

“The idea behind starting this endowment was to have a vehicle to enable people to feel comfortable making charitable gifts to the Living History Program and to emphasize the value of preserving Georgia Tech traditions and history,” said Somers, who staffs the Program along with a full-time videographer and several part-time student workers. “That’s why the endowment fund is named for Georgia P. Burnell. I think of Burnell as belonging to all of us because he’s the spirit of Georgia Tech. I want this endowment to ensure that the Living History Program will still be here a generation from now and a generation after that. I don’t want the treasures we’ve accumulated to disappear because of lack of funding.”

This semester, Somers is collaborating on a new course entitled “Living History at Georgia Tech.” She has also coached student orientation leaders in Tech traditions, and she never misses an opportunity to tell Tech stories in other campus venues.

“How important,” Somers said. “My hope is that future generations of Tech students and alumni will avail themselves of our database and come to know the roots of this rich institution. Of all that has come before, so richly recounted by our alumni in their own words. Those videos of Georgia Tech alumni, friends and employees. Those videos are transcribed, archived and made available for research and the production of documentaries. The earliest story in the collection is from a 1915 alumna who at 100 years of age happily sang “Ramblin’ Wreck.” The idea behind starting this endowment was to have a vehicle to enable people to feel comfortable making charitable gifts to the Living History Program and to emphasize the value of preserving Georgia Tech traditions and history,” said Somers, who staffs the Program along with a full-time videographer and several part-time student workers. “That’s why the endowment fund is named for Georgia P. Burnell. I think of Burnell as belonging to all of us because he’s the spirit of Georgia Tech. I want this endowment to ensure that the Living History Program will still be here a generation from now and a generation after that. I don’t want the treasures we’ve accumulated to disappear because of lack of funding.”

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