Call Me—Any Time, Any Place, Anywhere
ROMANCE IN THE TIME OF CELL PHONES

Because I grew up with rotary phones and the only answering machine in the house was my mother, I’ve seen firsthand the development of new communication technologies and how we use them with family, friends, and romantic partners. I find the changes fascinating, leading me to one of my research interests.

With Professor Robert Duran and then—graduate student Teodora Rotaru M’08, both in the School of Communication in the College of Arts and Sciences, I conducted a study on college students’ use of cell phones in their romantic relationships. We were interested in whether 24/7 availability-by-cell-phone creates tension in relationships. Would people feel their independence was threatened? Most of us enjoy being connected to others but also want some autonomy to do as we please.

Constant availability seemed to be a double-edged sword. Those who expected their partners to be always available by phone felt their own freedom to spend time with friends was restricted. “If I want my partner to be a phone call (or text) away at all times, I have to be too,” was the attitude. One student complained about having to “call too much to check in when we are away from each other.”

Some had conflict because the partner did not always answer the phone. One student wrote, “How come I couldn’t get in touch with her? Where was her phone?” Like a parent who buys a teen a cell phone to keep in touch, he knows the truth: she has her phone but sees that it is him (again!) and refuses to pick up.

Negotiating rules about when it is and isn’t appropriate to call or text might reduce tension. Thirty-four percent of our study participants said they did have rules about contacting each other. Even more of them felt that rules are unnecessary, but not having rules didn’t always work out well. Such was the case with the student who said his girlfriend “can call whenever she wants, but if I am busy or doing something else, she always gets mad.”

The idea of cell phone rules intrigued me and was the focus of a next project, completed with Professor Duran and another colleague, Assistant Professor Aimee Miller.

Students rated cell phones as a very important means of communicating in their romantic relationships. We found that if they were happy with their use of cell phones, they were more satisfied with the relationship overall. But what about rules?

“No thanks,” they told us. Couples were happier when there were no cell phone rules. That meant they could call or text each other as often as they wished and check one another’s call and text logs to see who else their partners were contacting.

We found one exception to the preference for no rules. Study participants said they were happier overall if they did have rules about not fighting over the phone.

Although many students seem to text a great deal, when it comes to romantic relationships, they often weigh the appropriateness of communication channels before choosing. My other research has shown that study participants say miscommunication is the biggest drawback to texting. Despite this fact, they overwhelmingly prefer texting to calling for uncomfortable or unpleasant situations. Since they know they are more apt to text, and texting leads to miscommunication, they recognize that rules about not using the cell phone to fight are important.

Readers might be relieved to know, too, that 96 percent of participants said they would opt for face-to-face communication to say, “I love you,” for the first time, and only 4 percent said they would break off a relationship with a text message.

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The Sound of Silence
FIVE DAYS WITHOUT A CELL PHONE

“Of the students who thought it a useful experiment, several mentioned noticing the campus for the first time.”

—WILLIAM MAJOR

By William Major, associate professor of English in Hillyer College. A longer essay by Major was published under the title “Thoreau’s Cell Phone Experiment” in the Jan. 16, 2001, issue of The Chronicle of Higher Education. The essay generated so many comments that The New Yorker wrote about it in an online article.

Inspired by Henry David Thoreau’s experiment described in his book Walden—living a life of simplicity and solitude in the Massachusetts woods—I have conducted my own experiment in my sophomore literature class for the last few years. On our final day of discussing Walden, I ask students to get out their Blackberries and smartphones and lay them on their desks. Then I explain that they will receive added points for the course if they will let me keep their phones for five days.

From the looks on their faces, you would think I’d asked the class to remove their collective clothes. Which, in a way, I had.

While it might seem that Thoreau’s most difficult lesson for American college students is to “simplify,” to reduce both needs and wants, I don’t see it that way. My students say they are generally in favor of conserving, spending less, and living with fewer things—at least in theory. Where they take a stand is when Thoreau asks them to spend time alone, away from family and friends. Solitude scares them. For Thoreau, the opposite was true.

“I find it wholesome to be alone the greater part of the time,” Thoreau writes. “I never found the companion that was so companionable as solitude.” This is a sentiment so disturbing to some of my students that it makes them angry.

Their reluctance to give up their phones (many students did not participate) seemed to derive primarily from fear. They worried that they would miss something: a family emergency, a party, a job offer, a friend who “really needed” them. Many were anxious they would be stuck somewhere on the road, having had an accident, and be unable to call for help. In short, most thought little good could come of an experiment meant to liberate them from the incessant presence of other people.

I asked my students to write about being left in the technological cold. Several wrote that they missed their morning classes because I had their alarms. One or two had to deal with angry significant others who hadn’t received answers to their many text messages.

One student confessed: “My expectation as well as fear about giving up my phone was that I would not have anyone to talk to. I imagined myself all alone for the entire weekend. I was basically afraid of being alone.” She said she experienced “a feeling of emptiness. I felt like I lost a friend.”

One student confessed that her fingers wouldn’t stop twitching while I had her phone. Others reported that they found themselves reaching for their phones in vain as said phones lay silent at the bottom of my desk drawer near the hand lotion and ibuprofen. It took several hours, they said, to adjust to not having that little shot of adrenaline or whatever they feel as they receive an important communication: “I’m at the library where r u?”

Of the students who thought it a useful experiment, several mentioned noticing the campus for the first time. One said he found himself talking with strangers, a practice Thoreau was fond of and one that may have helped this student understand the difference between real and misplaced fears.

Even the students who mentioned feeling liberated said their behavior wouldn’t change. Their novel sensation of freedom was perhaps too much to bear. But Thoreau had hope. He knew that “it is never too late to give up our prejudices.” I, too, have prejudices. I, too, have a smartphone. I will endeavor to give up both.
Making Nuclear Power Safe
WHAT WE HAVE LEARNED FROM FUKUSHIMA

The tragic events that have unfolded in Japan surrounding the Fukushima nuclear plants that were damaged by an earthquake and tsunami may have some Americans questioning the safety of nuclear energy in the United States. This country currently has 104 nuclear plants in operation, and they generate 20 percent of the nation’s electricity. In Connecticut, 50 percent of our electricity comes from the two operating units at the Millstone Nuclear Power Station near Niantic. We rely on nuclear power as one of the nation’s emissions-free power options; eliminating it would be a mistake for the environment and would increase our dependence on natural gas and coal.

The recent events at Fukushima should spur efforts in this country to build a permanent repository for spent nuclear fuel. The disaster should promote comprehensive reviews in the United States of our operating nuclear plants to determine the level of natural and manmade calamity they might have to withstand. Japanese officials’ confidence in the ability of its seawalls to protect the coastal plants in Fukushima led them to place backup diesel power on the ground level—a miscalculation that proved disastrous when seawater flooded the plant.

The Japanese disaster has clearly shown the importance of backup power for older nuclear reactors, predominantly those constructed in the 1970s that lack internal safeguards against power loss. It has also shown the potential for a significant radioactive release from spent fuel rods stored at the reactor sites. Fortunately, there is technology to resolve both of these issues, but the lack of political will and negative public outcry have so far derailed the location and construction of a permanent repository for spent nuclear fuel.

It is inherent in nuclear fission that post-shutdown cooling is required (unlike fossil-fueled power, which goes to zero power immediately). The decayed energy in the nuclear reaction drops to 1 percent of full power after several days, but it takes several years to drop low enough for air cooling to be adequate. The newest reactor designs have incorporated large water supplies within the containment structure to provide cooling in the event of a loss of power—and without any human-directed intervention for at least three days—to prevent meltdown of the reactor core. Beyond three days, it is generally acknowledged that external cooling could be initiated even after the largest natural, or worst terrorist-instigated, calamity.

But that doesn’t solve the problem of storing spent fuel. The Fukushima situation has shown that spent fuel stored on site does not receive the same level of protection as the fuel inside the reactor core. Core fuel is housed in a thick, steel-walled pressure vessel and further enclosed by several feet of concrete. By contrast, spent fuel is stored in deep pools of water, usually in an adjacent building that is not constructed to the same level of protection as the reactor core.

At present the United States stores all spent nuclear fuel at the power plant where it was used. Some of these storage facilities have been in existence for more than 40 years. Even plants like Connecticut Yankee in Haddam Neck, Conn., that have long been closed and demolished are still storing spent nuclear fuel. Lawmakers need to have the political will to create a long-term storage repository and remove much of this high-level radioactive waste from individual reactor sites. The viability of a storage technology has been demonstrated at the Waste Isolation Pilot Plant near Carlsbad, N.M., which has been storing defense-related spent fuel products for more than a decade.

If the United States constructs a commercial spent-fuel storage facility, verifies that the current nuclear power plants can safely shutdown after a natural disaster, and incorporates passive safety features into new nuclear-reactor designs, nuclear power can be a safe technology that meets our needs for reliable generation of electricity while reducing carbon dioxide emissions and our carbon footprint.

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The Lost City of Atlantis—Now Found?

Did the fabled lost city of Atlantis actually exist? If so, where was it located? What happened to it?

An international team of experts whose leaders include archaeologist Richard Freund, director of the University of Hartford’s Maurice Greenberg Center for Judaic Studies, believes it has found the answers to those questions in the marshlands of southwestern Spain. Using satellite photography, ground-penetrating radar, and underwater technology, Freund and his colleagues say that they have found the remains of an ancient city that they believe is Atlantis, submerged by a tsunami some 4,000 years ago.

Their work was chronicled in a National Geographic Channel documentary, Finding Atlantis, which was broadcast nationally on March 13, just two days after the tragic tsunami in northern Japan.

The possible discovery of an answer to one of the most tantalizing mysteries of the ancient world—combined with the devastating, modern-day disaster in Japan—created worldwide interest in the Atlantis project and put Freund at the center of an international media frenzy.

From Newsweek to The Jerusalem Post to the BBC, Freund was interviewed by media outlets around the world. He also received hundreds of e-mails inquiring about the discovery, including many offers to help with the project.

“Everyone was surprised at how the story of an ancient civilization destroyed after an earthquake and tsunami was just so much more real after seeing the devastation in Japan,” Freund says.

The Greek philosopher Plato wrote about Atlantis some 2,600 years ago, describing it as “an island situated in front of the straits which are by you called the Pillars of Hercules.” He was referring to the Strait of Gibraltar and using the name by which it was known in antiquity. The strait connects the Mediterranean Sea with the Atlantic Ocean between southern Spain and northwest Africa. Plato wrote that “one grievous day and night . . . Atlantis was swallowed up by the sea and vanished.”

Eight years ago, a pair of German scientists examining satellite photographs identified what looked like a submerged city in the midst of one of the largest swamps in Europe, the Doña Ana National Park in southern Spain. The satellite photos showed a circular structure set deep in the swamp, which fit with Plato’s description of the city of Atlantis.

In 2006 a group of Spanish archaeologists began following up on the satellite photographs. They invited Freund, who is well known for his use of cutting-edge imaging technology—ground-penetrating radar, digital mapping, and electrical resistivity tomography—to join them. Freund assembled his team, including three Canadian geophysicists led by chief geophysicist Paul Bauman and geographer Philip Reeder from the University of South Florida, and they headed to Spain to work in the mudflats of Doña Ana. Another group of Spanish marine archaeologists worked just off the coast.

Freund’s team and the Spanish archaeologists found many artifacts, including multiple images carved as stone signposts of what looks like an Atlantean warrior guarding the entrance to the ringed city.

But the most powerful evidence, Freund says, was his discovery of a series of “memorial cities” built in the image of Atlantis about 100 miles away, in central Spain. Freund believes that the refugees of the Atlantis tsunami built these miniature versions of Atlantis as memorials to their former home.

Today, the media frenzy surrounding the possible discovery of Atlantis has begun to die down, but work continues at the archaeological site in the Spanish marshland. The Atlantis project will be chronicled in Freund’s new book, Digging through History: From Atlantis to the Holocaust (Rowman and Littlefield, 2011), which is due out later this year.