

AU research team testing new voting system

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A new system developed at Auburn University could eliminate hanging chads and revolutionize America's voting culture.

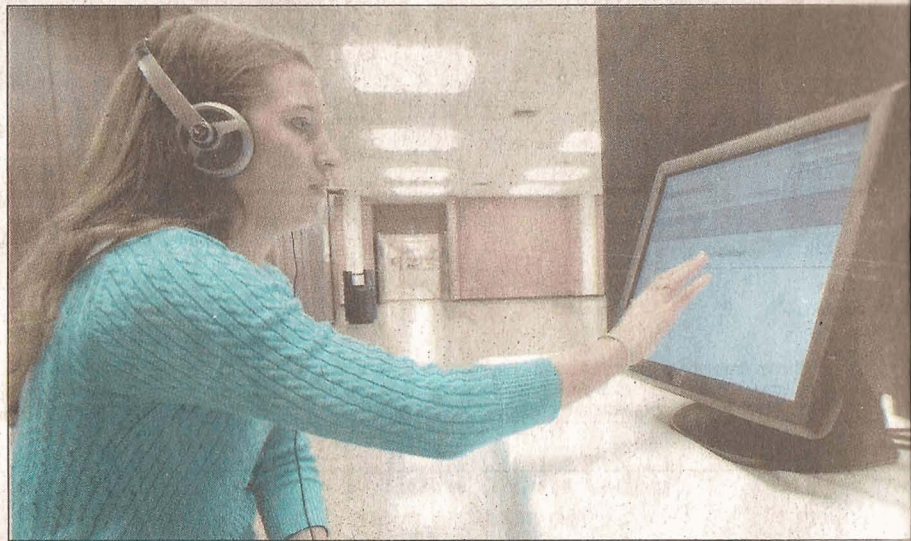
Prime III is an electronic system that allows people, including those with certain disabilities, to vote easily without assistance.

Dr. Juan Gilbert and a team of 10 graduate students from the department of computer science and software engineering at AU's Samuel

Ginn College of Engineering spent the last few years developing and modifying a voting system that would eliminate discrepancies, such as the hanging chads in Florida during the 2000 election, but be user-friendly for all. Indiana University, the AU Center for Governmental Services and IBM are also partners in the effort funded by AU Outreach.

The Prime III system, which gets its name from the three voting methods used by the program — voice, touch

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VASHA HUNT | OPELIKA-AUBURN

Ashley Wachs, an Auburn University graduate student in software engineering, tests a new electronic voting system developed at AU Thursday at the Haley Center.

VOTING: System developed at Auburn University

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and sight — is currently tested every morning by willing participants from the first floor of the Haley Center.

“What’s more natural than speech and touch?” Gilbert asked.

It may take a few minutes to vote, but Gilbert is confident the newness of the system and their location in Haley will attract the 100-200 participants sought for a viable campus sample. The race is for the best burger — McDonald’s Big Mac, Burger King Whopper and Wendy’s Classic Single — and the best fries at the same three fast-food restaurants.

Instructions provided through a headset allow the voter to choose between the “candidates” by saying a respective number. Casting is still anonymous because random numbers are assigned for each candidate and each voter. Votes made for the same burger by two different people would be associated with different numbers, Gilbert said.

Votes can also be cast by touching choices on the computer screen. Once voting is complete, a paper ballot is printed and one is stored electronically.

Ashley Wachs, a graduate student in engineering, isn’t disabled, but found the system easy to use. Besides directions being easy to follow, she liked how it asked her multiple times if she was certain about her selections. She could see the system having a widespread impact on voting.

“It accommodates so many

different types of people,” she said. “I think it will greatly increase the number of people voting because they will have the confidence to do it by themselves.”

Gilbert said the number one challenge for the team was usability. His lab, the Human Center Computing Lab, focuses on innovative solutions for real-world problems.

“When that fails, it doesn’t matter what you have in place,” Gilbert said, “it’s not going to work.”

Another issue was security. Electronic voting has its share of skeptics because of potential hacker tampering, but after the 2000 election, paper has its critics as well, he said. Once testing is completed on campus Tuesday, the electronic votes will undergo a security test by experts at AU, IU and around the country.

Gilbert said the team tried to cover all its bases and even worked with security experts in the development stages to insure it would be as safe as possible from hackers.

“They will be able to get in but they can’t have an effect on the system,” he said. Also,

it is not possible to hack in undetected, he said.

Vince Cross, a graduate student in the HCCL, agreed the computer encryptions are strong, but if any part of the security system breaks down, even the guard standing by, the whole system is susceptible.

“Your security is only as good as all the components are together,” he said.

As the product reaches its final stages, Gilbert said the casing will be made tamper-proof as another security measure.

To collect a rural sampling, Gilbert and his students will travel to Uniontown. Those results will also undergo the se-

curity test. Gilbert said he may conduct another usability test in Auburn to get the elderly population.

The last test for the system will be at the CGS. If the center can certify it as a viable voter system, Gilbert said local and state agencies can use them in elections.

“With the system coming from a research institution not linked to a particular party or candidate, we think people will be more likely to embrace it,” Gilbert said. “It’s not for sale and we’re not looking for a profit. We’re just hoping to offer a secure alternative that enables a larger base of voters to participate in the electoral process.”