

Local Weather



16

[more...](#)

This site is updated every Monday, Wednesday, Thursday and Friday before noon (CST).

Archive Search

Site Index

- [Home Page](#)
- [Reader Opinion](#)
- [News](#)
- [Top Stories](#)
- [Sports](#)
- [Obituaries](#)
- [Entertainment](#)
- [Community News](#)
- [Police - Courts](#)
- [Editorial](#)
- [Weather](#)
- [National News](#)
- [Archives](#)
- [Classifieds](#)
- [View All Ads](#)
- [Place An Ad](#)
- [Our Newspaper](#)
- [News Stand](#)
- [Locations](#)
- [About Us](#)
- [How to Advertise](#)
- [Contact Us](#)
- [Extra Content](#)
- [Health](#)
- [Entertainment](#)
- [Stocks](#)
- [Online Forms](#)
- [Subscribe to the Print Edition](#)

Headlines

Scientists Figure Out Why Mona Lisa Smiles

[View opinions on this and other stories.](#)

By *TOBY STERLING*
Thursday, December 15, 2005 6:51 PM CST

AMSTERDAM, Netherlands - The mysterious half-smile that has intrigued viewers of the Mona Lisa for centuries isn't really that difficult to interpret, Dutch researchers said Thursday.

She was smiling because she was happy _ 83 percent happy, to be exact, according to scientists from the University of Amsterdam.

In what they viewed as a fun demonstration of technology rather than a serious experiment, the researchers scanned a reproduction of Leonardo da Vinci's masterpiece and subjected it to cutting-edge "emotion recognition" software, developed in collaboration with the University of Illinois.

The result showed the painting's famous subject was 83 percent happy, 9 percent disgusted, 6 percent fearful and 2 percent angry. She was less than 1 percent neutral, and not at all surprised.

Leonardo began work on the painting in 1503, and it now hangs in the Louvre in Paris.

The work, also known as "La Gioconda," is believed to have portrayed the wife of Francesco del Giocondo. The title is a play on her husband's name, and also means "the jolly lady" in Italian.

Harro Stokman, a professor at the University of Amsterdam involved in the experiment, said the researchers knew the results would be unscientific _ the software isn't designed to register subtle emotions. So it couldn't detect the hint of sexual suggestion or disdain many have read into Mona Lisa's eyes.

In addition, the technology is designed for use with modern digital films and images, and subjects first need to be scanned in a neutral emotionless state to accurately detect their current emotion.

Lead researcher Nicu Sebe took the challenge as seriously as he could, using the faces of 10 women of Mediterranean ancestry to create a composite image of a neutral expression. He then compared that to the face in the painting, scoring it on the basis of six emotions: happiness, surprise, anger, disgust, fear and sadness.

Sponsor

For A Newsstand Nearest You

Tahlequah Daily
PRESS

Upcoming Stories

Highlights

Editorial ([top](#))

- [Why we needed the 'distasteful' lottery in the first place](#)
- [New Orleans, Katrina and racism: A Superdome survivor's take](#)
- [Coach issue gets personal](#)

Entertainment ([top](#))

- [Fite releases first CD](#)

Obituaries ([top](#))

- [Annie Carpenter](#)
- [Chase James Littlefield](#)
- [Dr. William Cheatham M.D.](#)

Police - Courts ([top](#))

- [Wednesday, Dec 14 Court Report](#)
- [Wednesday, Dec. 14 police beat](#)
- [Wednesday, Dec. 14 sheriff's beat](#)
- [Tuesday, Dec. 13 Court Report](#)
- [Tuesday, Dec. 13 police beat](#)
- [Tuesday, Dec. 13 sheriff's beat](#)
- [Sunday, Dec. 11 Court Report](#)
- [Sunday, Dec. 11 police beat](#)
- [Sunday, Dec. 11 sheriff's beat](#)

Sports ([top](#))

- ['Home opener' kind to Sequoyah](#)
- [Tigers outshoot ranked Zebras](#)
- [Lady Indians rebound for third place](#)
- [Poteete one of many Redmen honorees](#)
- [Challenging Tigers can't reel in home wins](#)

Top Stories ([top](#))

- [Titanic - the community, not the ship](#)
- [Express yourself](#)
- [Voters pass 911 tax](#)
- [Growing pains](#)
- [School board discusses fifth-graders' future](#)
- [Former Aaron's employee sues](#)
- [Cherokee council confirms new board members](#)
- [HPWA lacks funds to hire inspector](#)
- [Hulbert board hears support for aq ed](#)
- [State auditor releases Sallisaw investigation findings](#)
- [Finding gifts that say "I love you!"](#)
- [Pay phones disappearing from the scene](#)
- [Kids sound off on pop](#)
- [Reward day lets kids relax](#)
- [American Woodmark lays off employees](#)

"Basically, it's like casting a spider web over the face to break it down into tiny segments," Stokman said. "Then you look for minute differences in the flare of the nostril or depth of the wrinkles around the eyes."

Stokman said with a reading of 83 percent, it's clear happiness was the woman's main emotion.

Biometrics experts not involved with the experiment said the results were interesting even if they aren't the last word on the Mona Lisa.

"Facial recognition technology is advancing rapidly, but emotional recognition is really still in its infancy," said Larry Hornak, director of the Center for Identification Technology Research at West Virginia University.

"It sounds like they did try to use a data set, even if it was small, and that's typical of work in an area like this that's relatively new. It's an interesting result," he said.

Stokman said he knew the University of Amsterdam effort won't prove or disprove controversial theories about the painting. One is that it was actually a self-portrait of Leonardo himself as a woman.

"But who knows, in 30, 40, 50 years, maybe they'll be able to tell what was on her mind," Stokman said.

Hornak agreed the idea was entertaining.

"It's always fun to apply technology to areas of public interest, and sometimes you can come up with results that are very illuminating," he said.

Jim Wayman, a biometrics researcher at San Jose State University agreed.

"It's hocus pocus, not serious science," Wayman said. "But it's good for a laugh, and it doesn't hurt anybody."

A service of the Associated Press(AP)

 [printable version](#)

 [e-mail this story](#)

[View opinions on this and other stories.](#)

Post your opinion:

Please input your name:

Please input your email address:

Please input your message:

(Do not delete the text that is already displayed in this field! That text displays the headline for the story you are commenting on)

Your opinions won't actually post on the story but will appear in the reader opinion and the headline below will let everyone know what story your comment concerns.

Scientists Figure Out
Why Mona Lisa Smiles</
b>

Preview Comment

*Comments will not be viewable
on the web site until they have
been approved by the editorial
staff of
TahlequahDailyPress.com.*