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## **The Breaking News English.com Resource Book**

“1,000 Ideas & Activities For Language Teachers”

<http://www.breakingnewsenglish.com/book.html>

## **New computer art mirrors viewer’s mood**

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**5 August, 2006**

## THE ARTICLE

### **New computer art mirrors viewer's mood**

Researchers from universities in America and England have developed a new software program that translates peoples' emotions into computer-generated artwork. The technology is still in its infancy and analyses only eight basic facial expressions, including the position and shape of the mouth, the openness of the eyes and the angle of the eyes. These visual cues are picked up by a web cam and are used to make an approximation of the emotional state of the viewer. The application uses the data it gathers to select hues and types of brush strokes as each expression alters. Lead researcher Dr. John Collomosse of the University of Bath in southwest England said the technology "does all of this in real time, meaning that as the viewer's emotions change, the artwork responds accordingly".

Collomosse calls his experiments "empathic painting". He said: "Once you have the programme and have calibrated it for the individual viewer, you are ready to start recreating personalized art based on your mood." The project is part of ongoing research that is aimed at developing a range of advanced artwork tools for use in the computer graphics industry. It may also have practical uses in other fields. Practitioners in the realms of neurology and psychology could apply the software in determining the psychological state of patients through the interpretation of the computer-generated images. It may also provide a little more pizzazz to the mundaneness of our humdrum lives by automatically placing uplifting artwork in front of us wherever we go. No more gloomy faces on the daily commute.

## WARM-UPS

**1. MY COMPUTER:** With your partner(s), talk about how important your computer is to you. How does it help you in your life? What other things would you like it to do? When you have finished, find a new partner and report on what you talked about.

**2. CHAT:** In pairs / groups, decide which of these topics or words from the article are most interesting and which are most boring.

*Researchers / software / artwork / facial expressions / mouth shapes / emotions / brush strokes / moods / computer graphics / pizzazz / humdrum life / commuting*

Have a chat about the topics you liked. For more conversation, change topics and partners frequently.

**3. MOOD ART:** Imagine your computer can read your feelings and display artwork to reflect your mood. With your partner(s), describe the kind of artwork that might be displayed on your computer screen in the following situations. Change partner(s) and share what you talked about.

- You passed all your exams
- You think a burglar is in your house
- You have a pounding headache
- You are head over heels in love
- You can't connect to the Internet
- A giant spider walks across your desk
- George W. Bush just resigned
- Other \_\_\_\_\_

**4. QUICK DEBATE:** Students A believe computers are our friends and can help us emotionally. Students B believe computers are just machines that add to our stress. Debate this with your partners. Change partners often.

**5. HEADLINES:** With your partner(s), talk about the following imaginary newspaper headlines. What do you think of them? Is it possible they might come true one day? Change partners and share your findings.

- a. Man marries his computer
- b. World's first computer-for-brain transplant a success
- c. Computer becomes president of USA
- d. Computers banned by high schools
- e. Humans ask computers for better working conditions
- f. Europe's computers disabled by magnet bombs
- g. It's here – World's first 100GB one-dollar computer
- h. Every person in world now online, says UN's Computers-For-All head

**6. ART:** Spend one minute writing down all of the different words you associate with art. Share your words with your partner(s) and talk about them. Together, put the words into different categories.

## BEFORE READING / LISTENING

**1. TRUE / FALSE:** Look at the article's headline and guess whether these sentences are true (T) or false (F):

- |   |       |
|---|-------|
| a. A new computer program can paint moody pictures on mirrors.      | T / F |
| b. The program recognizes eight basic facial positions.             | T / F |
| c. A person's mood determines the type of brush stroke chosen.      | T / F |
| d. It takes several hours for the computer to generate the artwork. | T / F |
| e. The program must be calibrated for each individual viewer.       | T / F |
| f. The program may have uses in neurology and psychology.           | T / F |
| g. The program may add more pizzazz to our everyday lives.          | T / F |
| h. The artwork will mean there'll be more gloomy commuters.         | T / F |

**2. SYNONYM MATCH:** Match the following synonyms from the article:

- |                   |                 |
|-------------------|-----------------|
| a. infancy        | changes         |
| b. hues           | tedious         |
| c. approximation  | adjusted        |
| d. alters         | spheres         |
| e. accordingly    | estimate        |
| f. calibrated     | analysis        |
| g. realms         | correspondingly |
| h. interpretation | early stages    |
| i. pizzazz        | vitality        |
| j. humdrum        | colors          |

**3. PHRASE MATCH:** Match the following phrases from the article (sometimes more than one combination is possible):

- |                                     |                                   |
|-------------------------------------|-----------------------------------|
| a. translates peoples' emotions     | faces on the daily commute        |
| b. The technology is still          | strokes as each expression alters |
| c. These visual                     | psychological state of patients   |
| d. select hues and types of brush   | humdrum lives                     |
| e. as the viewer's emotions change, | cues are picked up by a web cam   |
| f. ready to start                   | in its infancy                    |
| g. developing a                     | recreating personalized art       |
| h. determining the                  | the artwork responds accordingly  |
| i. the mundaneness of our           | range of advanced artwork tools   |
| j. No more gloomy                   | into computer-generated artwork   |

## WHILE READING / LISTENING

**GAP FILL:** Put the words in the column on the right into the gaps in the text.

### New computer art mirrors viewer's mood

Researchers from universities in America and England have developed a new software program that \_\_\_\_\_ peoples' emotions into computer-generated artwork. The technology is still in its \_\_\_\_\_ and analyses only eight basic facial expressions, including the position and shape of the mouth, the \_\_\_\_\_ of the eyes and the angle of the eyes. These visual cues are \_\_\_\_\_ up by a web cam and are used to make an approximation of the emotional state of the viewer. The application uses the \_\_\_\_\_ it gathers to select hues and types of brush strokes as each expression \_\_\_\_\_. Lead researcher Dr. John Collomosse of the University of Bath in southwest England said the technology "does all of this in \_\_\_\_\_ time, meaning that as the viewer's emotions change, the artwork \_\_\_\_\_ accordingly".

Collomosse calls his experiments "\_\_\_\_\_ painting". He said: "Once you have the programme and have \_\_\_\_\_ it for the individual viewer, you are ready to start recreating personalized art \_\_\_\_\_ on your mood." The project is part of ongoing research that is aimed at developing a range of advanced artwork \_\_\_\_\_ for use in the computer graphics industry. It may also have practical uses in other fields. Practitioners in the \_\_\_\_\_ of neurology and psychology could apply the software in determining the psychological state of patients through the interpretation of the computer-generated images. It may also provide a little more \_\_\_\_\_ to the mundaneness of our \_\_\_\_\_ lives by automatically placing uplifting artwork in front of us wherever we go. No more gloomy faces on the daily \_\_\_\_\_.

*alters*  
*picked*  
*infancy*  
*real*  
*data*  
*translates*  
*responds*  
*openness*

*pizzazz*  
*tools*  
*calibrated*  
*commute*  
*realms*  
*empathic*  
*humdrum*  
*based*

## LISTENING

Listen and fill in the spaces.

### **New computer art mirrors viewer's mood**

Researchers from universities in America and England have developed a new software program that translates \_\_\_\_\_ into computer-generated artwork. The technology is still in its infancy and analyses only eight \_\_\_\_\_ expressions, including the position and shape of the mouth, the openness of the eyes and the angle of the eyes. These \_\_\_\_\_ are picked up by a web cam and are used to make an approximation of the emotional state of the viewer. The application uses the data it gathers to select \_\_\_\_\_ of brush strokes as each expression alters. Lead researcher Dr. John Collomosse of the University of Bath in southwest England said the technology "does all of this in real time, meaning that as the viewer's emotions change, the artwork \_\_\_\_\_".

Collomosse calls his experiments "empathic painting". He said: "Once you have the programme and have \_\_\_\_\_ for the individual viewer, you are ready to start recreating personalized art based on your mood." The project is part of ongoing research that is aimed at developing a range of advanced artwork tools for use in the computer graphics industry. It may also have practical uses in other fields. Practitioners in \_\_\_\_\_ neurology and psychology could apply the software in determining the psychological state of patients through \_\_\_\_\_ the computer-generated images. It may also provide a little more pizzazz to the mundaneness of \_\_\_\_\_ by automatically placing uplifting artwork in front of us wherever we go. No more \_\_\_\_\_ on the daily commute.

## AFTER READING / LISTENING

**1. WORD SEARCH:** Look in your dictionaries / computer to find collocates, other meanings, information, synonyms ... for the words 'daily' and 'commute'.

- Share your findings with your partners.
- Make questions using the words you found.
- Ask your partner / group your questions.

**2. ARTICLE QUESTIONS:** Look back at the article and write down some questions you would like to ask the class about the text.

- Share your questions with other classmates / groups.
- Ask your partner / group your questions.

**3. GAP FILL:** In pairs / groups, compare your answers to this exercise. Check your answers. Talk about the words from the activity. Were they new, interesting, worth learning...?

**4. VOCABULARY:** Circle any words you do not understand. In groups, pool unknown words and use dictionaries to find their meanings.

**5. STUDENT "COMPUTER ART" SURVEY:** In pairs / groups, write down questions about computers and art, and computers and feelings.

- Ask other classmates your questions and note down their answers.
- Go back to your original partner / group and compare your findings.
- Make mini-presentations to other groups on your findings.

**6. TEST EACH OTHER:** Look at the words below. With your partner, try to recall exactly how these were used in the text:

- |                 |            |
|-----------------|------------|
| • translates    | • empathic |
| • infancy       | • viewer   |
| • cues          | • fields   |
| • approximation | • patients |
| • alters        | • pizzazz  |
| • responds      | • gloomy   |

## DISCUSSION

### STUDENT A's QUESTIONS (Do not show these to student B)

- a. Did the headline make you want to read the article?
- b. What do you think of looking at art on a computer?
- c. Do you think computers can really gauge our feelings?
- d. How much time would you spend each day looking at art on your computer?
- e. Do you think art that matched your feelings would be therapeutic?
- f. Would you like all of the computers you pass each day to show art that makes you feel better?
- g. Does art in galleries change your mood?
- h. What kind of art do you like?
- i. What kind of art could be displayed on a computer that you don't normally see in galleries?
- j. Would you buy a software program that always displayed the exact kind of artwork you wanted to look at?

### STUDENT B's QUESTIONS (Do not show these to student A)

- a. Did you like reading this article?
- b. What do you think about what you read?
- c. What do you think of the idea of a computer-art doctor, whom you would visit when depressed, feeling stressed, or are generally down?
- d. Do you think artwork created by computer graphic artists will form an important new genre in the art world?
- e. Would you ever worry about the kinds of artwork the computer displayed that matched your mood?
- f. What do you think of the idea of printing the computer art and showing it to your colleagues and friends each morning?
- g. Would you rather look at a piece of artwork a computer has chosen to enhance your mood or a scene of beauty from nature?
- h. Do you think electronic art could be used to help people pass exams, speak better in public, learn languages better or other things?
- i. If you could look at the artwork that matches someone's feelings, whose computer-generated images would you like to see and why?
- j. Did you like this discussion?

**AFTER DISCUSSION:** Join another partner / group and tell them what you talked about.

- a. What was the most interesting thing you heard?
- b. Was there a question you didn't like?
- c. Was there something you totally disagreed with?
- d. What did you like talking about?
- e. Which was the most difficult question?

## SPEAKING

**COMPUTER ART:** With your partner(s), analyze the significance of the following images that have been created by a computer. What is the person's state of mind in each case?

	Significance	State of Mind
<u>Person A</u> George W. Bush sitting on a giant red banana		
<u>Person B</u> Two cute puppy dogs trying to read an English newspaper		
<u>Person C</u> A toilet burning on top of Mount Everest		
<u>Person D</u> A golden beach covered with chocolate and strawberries		
<u>Other</u> _____ _____ _____		

Change partners and exchange your ideas. Decide on who has the best explanations.

## **HOMEWORK**

**1. VOCABULARY EXTENSION:** Choose several of the words from the text. Use a dictionary or Google's search field (or another search engine) to build up more associations / collocations of each word.

**2. INTERNET:** Search the Internet and find more information about the electronic artwork that reflects peoples' moods. Talk about what you discover with your partner(s) in the next lesson.

**3. POSTER:** Make a poster advertising the benefits of new electronic art software that creates images to make you feel better. Show your poster to your classmates in the next lesson.

**4. ART DIARY:** Make a diary that includes artwork that reflects your feelings for one day. Show your diary to your classmates in the next lesson. Which diary did you like best and why?

## ANSWERS

### TRUE / FALSE:

- a. F      b. T      c. T      d. F      e. T      f. T      g. T      h. F

### SYNONYM MATCH:

- |                   |                 |
|-------------------|-----------------|
| a. infancy        | early stages    |
| b. hues           | colors          |
| c. approximation  | estimate        |
| d. alters         | changes         |
| e. accordingly    | correspondingly |
| f. calibrated     | adjusted        |
| g. realms         | spheres         |
| h. interpretation | analysis        |
| i. pizzazz        | vitality        |
| j. humdrum        | tedious         |

### PHRASE MATCH:

- |                                     |                                   |
|-------------------------------------|-----------------------------------|
| a. translates peoples' emotions     | into computer-generated artwork   |
| b. The technology is still          | in its infancy                    |
| c. These visual                     | cues are picked up by a web cam   |
| d. select hues and types of brush   | strokes as each expression alters |
| e. as the viewer's emotions change, | the artwork responds accordingly  |
| f. ready to start                   | recreating personalized art       |
| g. developing a                     | range of advanced artwork tools   |
| h. determining the                  | psychological state of patients   |
| i. the mundaneness of our           | humdrum lives                     |
| j. No more gloomy                   | faces on the daily commute        |

### GAP FILL:

#### New computer art mirrors viewer's mood

Researchers from universities in America and England have developed a new software program that **translates** peoples' emotions into computer-generated artwork. The technology is still in its **infancy** and analyses only eight basic facial expressions, including the position and shape of the mouth, the **openness** of the eyes and the angle of the eyes. These visual cues are **picked** up by a web cam and are used to make an approximation of the emotional state of the viewer. The application uses the **data** it gathers to select hues and types of brush strokes as each expression **alters**. Lead researcher Dr. John Collomosse of the University of Bath in southwest England said the technology "does all of this in **real** time, meaning that as the viewer's emotions change, the artwork **responds** accordingly".

Collomosse calls his experiments "**empathic** painting". He said: "Once you have the programme and have **calibrated** it for the individual viewer, you are ready to start recreating personalized art **based** on your mood." The project is part of ongoing research that is aimed at developing a range of advanced artwork **tools** for use in the computer graphics industry. It may also have practical uses in other fields. Practitioners in the **realms** of neurology and psychology could apply the software in determining the psychological state of patients through the interpretation of the computer-generated images. It may also provide a little more **pizzazz** to the mundaneness of our **humdrum** lives by automatically placing uplifting artwork in front of us wherever we go. No more gloomy faces on the daily **commute**.