

MSCS MESS

Department of Mathematics, Statistics, and Computer Science
St. Olaf College, Northfield, MN 55057
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Monday's Colloquium

Technical Foundations of Emoji

Whom: Hannah Miller (U of M)

Where: RNS 310

When: Monday, Nov. 6th | 3:30 p.m.

Tuesday CS Seminar

Analyzing Problems in Communication
Technologies

Whom: Hanna Miller (U of M)

Where: RNS 203

When: Tuesday Nov. 7th | 3:30p.m.



About the talk: Emoji are extremely popular on the web (about 60 million are sent on Facebook every day) and in text-based communication, but have you ever wondered how they actually work? For fun little characters that we use in our everyday communications, you might be surprised by the complexity involved in their implementation. In this interactive lecture, I will address some common misconceptions about emoji and dive into how they truly function. By the time we're done, you will have learned about character encodings, text rendering, complex character sequences, and even some theory about computer-mediated communication. Come for the emoji... and take away a little more computer science!

About the talk: In this day and age, technology is embedded in our lives. This talk focuses on identifying, understanding, and addressing problems in communication technologies, particularly in text-based communication applications and social networks. "Picture characters" such as emoji are widely used, but in my research I have shown that their visual nature gives rise to differing interpretations, and thus potential for miscommunication. I will touch on technological developments to both address and improve such communication problems. As an extension to these developments, I will also cover the design and development of a social network site customized for people with aphasia (inability to formulate language). Lastly, I will touch on the future of computer-mediated communication technologies to better support our everyday communications.

Flaten Art's *Seeing Math*

What: Opening Reception

Where: Flaten Art Museum

When: Friday, Nov. 10th | 5:30 p.m.

On behalf of Jane Nelson, the MSCS department is invited to the Flaten Art Museum's next exhibition, *Seeing Math*. The show brings together six contemporary artists, Daniel Dean, Tracy Krumm, Emily Lynch-Victory, Ben Moren, Margaret Pezalla-Granlund, and Roman Verostko, who address a number of mathematical concepts including infinity, algorithms, geometry, and the fourth dimension. The Opening Reception will be lively, fun, and with good food, so stop by!

Work Opportunity

Do you enjoy helping others with math? Are you interested in making some extra pocket change? Occasionally students from local high schools are looking for college students to tutor them in math, especially calculus and pre-calculus. Usually they are willing come to the college to meet. MSCS AAA Ellen Haberoth is maintaining a list of Oles interested in math tutoring - please contact her at habero1@stolaf.edu if you would like to be added to the list. Ideal candidates will have good grades in Calc I and II (B/B+ or above), excellent communication skills, and a passion for math and helping others.

To submit an article or event for publication in the mess, email nevilleq@stolaf.edu; to receive the Mess digitally each Friday, email habero1@stolaf.edu; visit <http://wp.stolaf.edu/mscs/mscs-mess/> for a digital archive of previous MSCS Mess issues.

Math T-Shirt Design Contest!!!!

For those of you who have an especially calculated love for art, an arithmetically aesthetic sense of beauty, or just a cool idea for a t-shirt, this is the contest for you! Email a two-color max, short sleeve t-shirt design to roiger1@stolaf.edu by **December 5th**. The winner will receive fame, acumen, acclaim, and be justly rewarded with a free t-shirt & pause pizza.

Weekly Theorem

Star Wars Theorem– Senator Palpatine is an excellent singer.

Proof. First, consider the musical *The Phantom of the Opera*. It follows that the Phantom is a prime character and a menace to those at the *Opera*. This gives that the *Phantom of the Opera* is a criminal. It follows then that we may apply the chain rule to obtain

$$D(\text{Phantom}(\text{The Opera}))$$

$$= \text{Phantom}'(\text{The Opera}) \bullet \text{Opera}'.$$

As *Opera* is sufficiently boring, differentiation implies it must be constant. From above we know the prime *Phantom of the Opera* is really a menace. Therefore, $D(\text{Phantom}(\text{The Opera}))$ is equivalent to $d(\text{Phantom Menace})$, where d is constant. As Senator Palpatine is *The Phantom Menace*, he must also be *The Phantom of the Opera*, and therefore, an excellent singer.

Quinton Neville, Editor
William Grodzicki, Adviser
Ellen Haberoth, Mess Czar