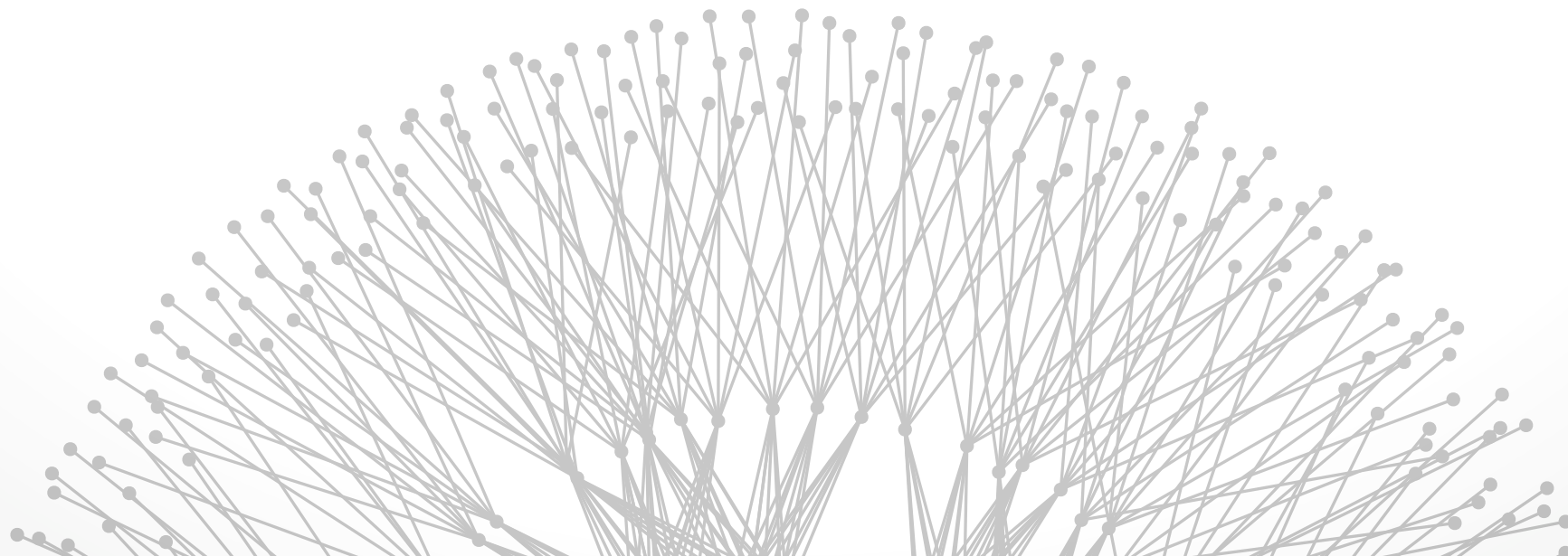


The Last Word

Brighten Godfrey
CS 538 December 10 2013



What we learned



The classics: how the networks work

The problems: how networks fail to work

The latest: how networks *could* work

so you now can go forth and do research...

...but why would you want to?

**Why I'm excited
about networking**

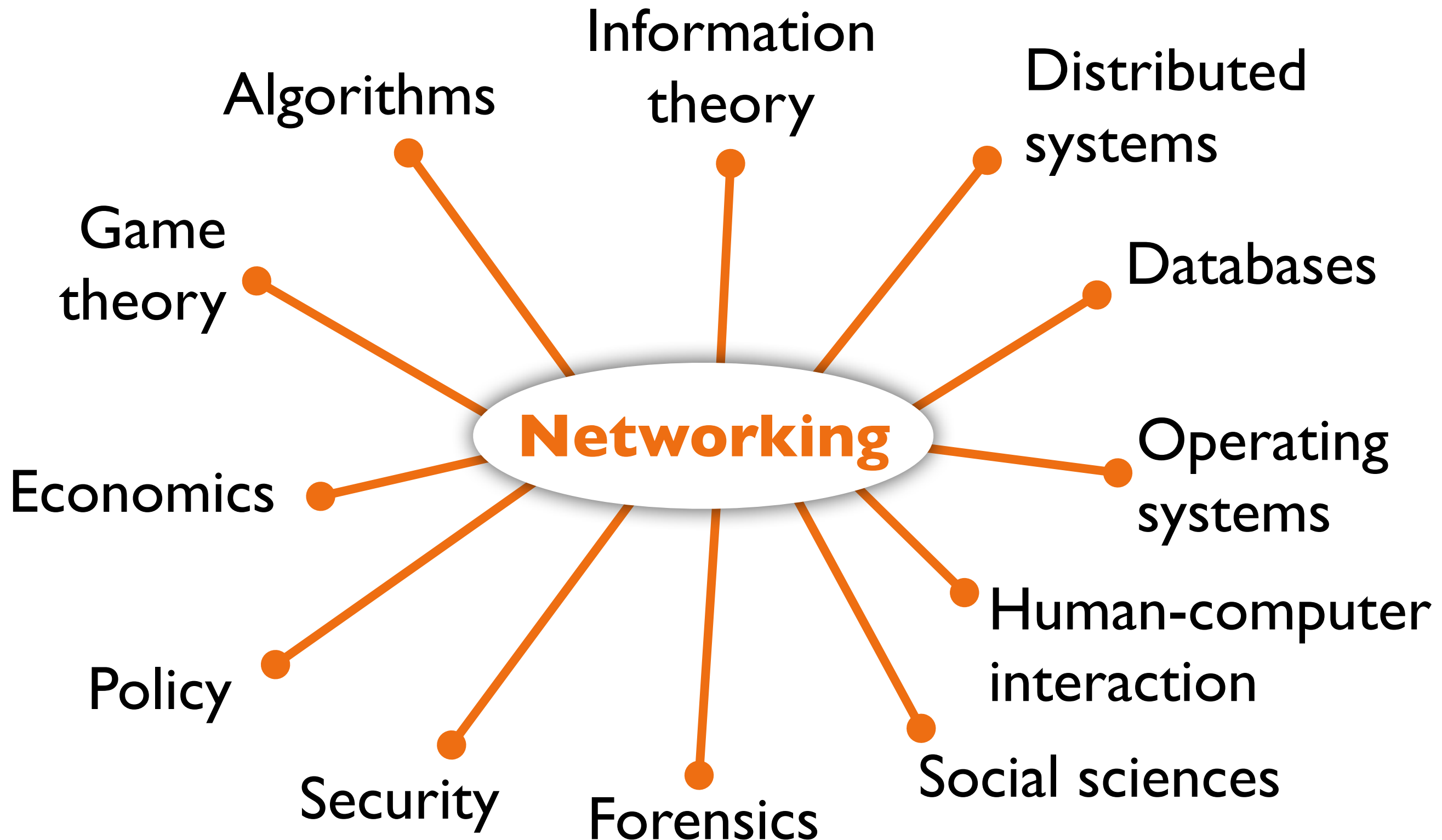
1. It's relevant



Majority of new developments in computer systems are dependent on networking

Far-reaching impacts beyond systems & networking

1. It's relevant



2. It's new



~40 years since the birth of the field

But only ~15 years since networks in widespread use

- tussles between businesses, P2P, malware, DDoS, government Internet censorship, CDNs all fundamental but relatively new!

Operating systems: ~30 years in widespread use

Physics: ~13.75 billion years in widespread use

3. It's changing



Network new people, new technologies, connect disciplines, “make order out of chaos” (– Jen Rexford)

Start a new area!

- In the last decade: Peer-to-peer, sensor networks, DTNs, Internet architecture, data centers, cloud, energy, big data, cell networks, software-defined networking...
- A new subfield almost every year

You can change not just the technology, but the field!

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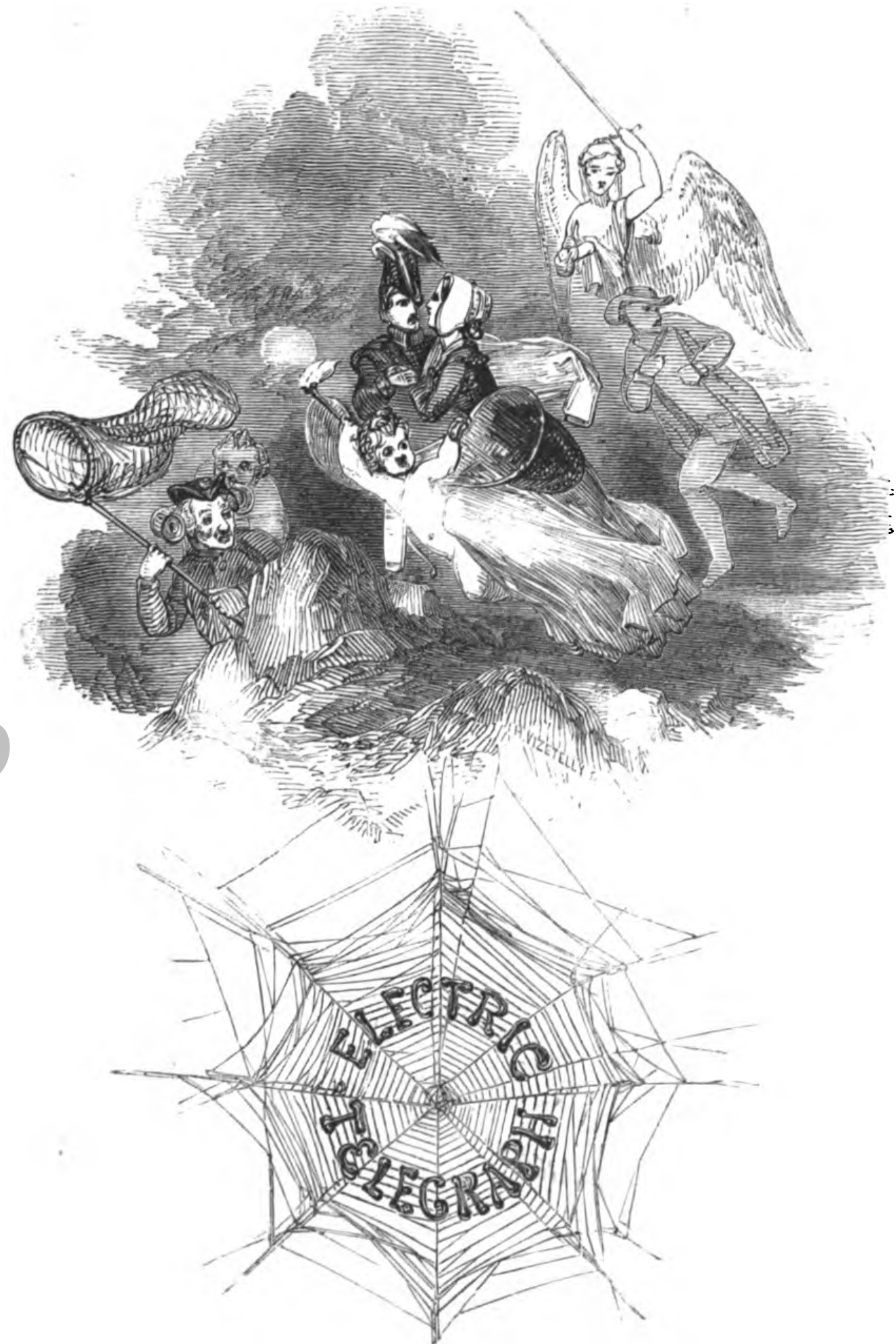
3. It's changing



About 3/4 of the world not yet online!

It is anticipated that the whole of the populous parts of the United States will, within two or three years, be covered with network like a spider's web.

— *The London Anecdotes,*
1848



3. It's changing



About 3/4 of the world not yet online!

Innovation more possible now than ever

- Clouds
- FPGAs
- Global-scale testbeds
- Software-defined networking

What it all adds up to...



You have the opportunity
for big impact!

for big impact!

What's next

The remains of the class



Project report

- Deadline extended to **Sun Dec 16, 11:59 pm**
- submit as PDF via email to Brighten

Tue Dec 17, 1:30 - 4:30 pm: poster session

- atrium outside 2405
- 26" x 36" easels provided
- free snacks

Talk to me anytime

Thank you!

One more thing...



ICES forms!