2010 discussion with TeraGrid Campus Champions about post-9/11 security provisions, and implications for central IT (and travel).
Won’t compete for federal funds.

Crowd-source social capital for travel support, mentors and more.

Pay-it-forward element: beneficiaries are encouraged to help others, or to help STEM-Trek in some meaningful way.
Focus groups:

- Early-career, HPC-Curious scholars from underrepresented groups and regions
- Veterans
- Workers displaced by automation
- Aging workforce
- People with disabilities
FIVE-YEAR RECIPE FOR FAILURE

• Lone champion secures a grant
• Program built around a machine & funding w/five-year shelf life
• Communications, outreach, education and ER neglected
• Thin: single point of failure
  • No vacation or time to train.
  • Too much to do; won’t foster growth.
  • No time for planning or advocacy.
  • Gets burned out.
• Program dies with the machine
  • Local trust & confidence wane.

• Jesse takes a job with a bigger lab where he has back-up, and can have a life again.
Who is STEM-Trek?

FB: Half are 18-34 (71% male)
Millennials; generation Y
Born 1982-2008
English: US, India and UK
Gen Y 80 million strong (US)

Largest generation in American history (bigger than boomers by 6+ million)

Fancy living a healthy lifestyle

Crave adventure

Seek peer affirmation

Hooked on social media

Impatient—they want it now

Believe in cause marketing (environment)

Digital natives (cut their teeth on a joystick)

Job-hopping is normal (3 years expected/91 %)

Ave. $35K+ student debt.

By 2025 three-fourths of the world’s workers will be millennials!!!!!
LOSS OF KEY SYSADMIN/TRAINER
TRADITIONAL RECRUITMENT (CSIR HR TEAM)

- Had been there 9 years (since he was a grad)
- Recruitment extended twice over a two-month period, but only drew three applications
- No unicorns applied
STEM-TREK OFFERED TO HELP

- Produced a blog
  - 8000+ STEM-Trek, re-Tweeted by HPCwire to 11.4k followers
- Marketed to Millennials (subliminal)
- Pull vs. Push
  - HR watering hole vs.
    - Broadcast to community of prospects
- Targeted prospects in Cape Town (industry HPC)
Do you have what it takes to be a CHPC Engineer? If so, apply by March 11!

On March 5, 2016 | By Kim | With 0 Comments

The South African Center for High Performance Computing (CHPC) is looking for an HPC Engineer with five years of relevant experience, and a combination of technical and soft skills.

The position is for a fixed term, with the possibility of extension.

As you may have heard, HPC industry eyes are on South Africa as a potential leader in the field. With the Square Kilometer Array (SKA) being built in the giant Karoo region, implications for SA and the HPC industry have captured the attention of researchers globally.

The successful candidate will be part of an exciting team working on projects that are truly groundbreaking.

If the successful candidate doesn’t already live in Cape Town, CSR will support relocation expenses (even if they don’t live on the continent). The position offers 25 paid vacation days each year.

If I were qualified, I wouldn’t be posting this—I would be applying before the March 11 deadline!

Elizabeth

Position Details:
The South African Council for Scientific and Industrial Research (CSIR) has a vacancy for a High Performance Engineer. The successful candidate will be expected to fulfill a significant role in the development of HPC technologies, both hardware and software, and to assess its performance and suitability for use in production HPC environments. In addition, the candidate will be required to...

CHPC’s New System Features:

- Dell™ PowerEdge™ C6320 servers
- 1024GB/node (fat nodes)
- 24 cores each node
- 16GB/node (thin nodes)
- 12 cores each node
- 64GB/node
- 3.5GHz Intel Xeon® E7-8850 v3 processors
- 4x Intel Xeon® E7-8850 v3 processors
- 14 cores each node
- 8GB/node
- Infiband™ (V) OR 10 Gigabit Ethernet
- Parallel storage (SAS) VR

Total expected LINPACK compute (TFLOPS):

- 774.5 in Phase 1 and 1000x Phase 2 (April 2016)

The 2013 student Cluster Challenge Winners will travel to Germany to compete in the International SCC this summer.
22 QUALIFIED APPLICATIONS RECEIVED IN 8 DAYS!
Recruit and Retain Millennial Unicorns

Remember, they can often earn twice as much elsewhere
Offer a sense of security, avoid soft money if you can
Expedite the HR process. Avoid bottlenecks!
Ample vacation time, and back-up so they can take it
Childcare and generous maternity leave
Flexible work options (home)
Peer recognition: Employee of the month
Free gym membership (family) and time to exercise
Support professional development, travel & conferencing
Encourage and reward civic involvement (cause marketing)
Facilitate the pursuit of and/or completion of advanced degree

Institutionalize perks; In 9 years ¾ of all workers will be millennials!!!!!
DO YOU REALLY NEED A UNICORN?

• If you have strong back-end tech talent, think about augmenting the front-end with soft skills, and cross-train

✓ Cheaper
✓ Diverse
✓ Abundant
WHERE TO FIND PROSPECTS

• Look under the “Long Tail”

• HPC communicators can be from underrepresented disciplines more diverse / stellar soft skills.
  • Arts & Humanities
  • Social Science (XSEDE Jetstream)
  • Economics

• Cherry-pick from another silo (LinkedIn)
  • Journalism and Communications Academic Depts.
  • Public Affairs/University Relations
  • Displaced journalists can be retrained
TechTopia

Well-wired living, laboratory, education, training, and recreational community that offers technical & psycho-social support for rural, home-based, high-tech workers.

Recreational, fitness and cultural options improve the quality of life for residents and their families, while creating a weekend destination for people from nearby cities (vs. the other way around).
QUESTIONS?

www.stem-trek.org
info@stem-trek.org