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STEM Future Dallas

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STEM Future Dallas

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Southern Methodist University
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What is it?

STEM: Science, Technology, Engineering and Mathematics

Careers in STEM fields are diverse and crucial to the economy

STEM careers and the education to obtain them are challenging but rewarding

Above: Scientists are often not fully trained until after they are 8 years old.
Okay, it’s important. But what’s the problem?

- American students are well behind other first-world countries in science and math.
- Below the median in both categories.
- High-school student interest and math proficiency are dwindling.
- Bottom line: America is behind.

Above: Obligatory pie chart. No wonder we got a grant.
STEM Education

Figure 1: Too few 12th grade students interested in STEM and proficient in math

Credit to The Washington Post, “Lack of interest and aptitude keeps students out of STEM majors.”
Our solution

Examine the problem from a smaller scale: Dallas as a microcosm for the US.

- Gain a “student’s perspective” on STEM careers.
- Interview experts and educators from the different sectors.
- Compile news and information in a concise, user-friendly, frequently updated website.

Above: It is a perfect microcosm because it’s the most American.
Our solution

Goal: Gain a “student’s perspective” on STEM careers.

- Questionnaires and interviews
  - Undergraduate students: SMU
    - STEM majors, but particular interest to business majors
  - Secondary (high school) students: DISD, Highland Park

While primary education is a crucial concern as well, we will constrain our focus to these two groups.

Above: College freshmen are a rich repository of wisdom and information.
Our solution

Goal: Interview experts and educators from the different sectors.

Audio and video recorded interviews for multimedia and website purposes

Gain perspectives from different areas of the industry; views of education, student interest, and career

Targeted groups: Texas Instruments, UT Southwestern Medical Center, Teach for America
Our solution

Goal: Compile news and information in a concise, user-friendly, frequently updated website.

- Collect relevant news stories and research articles, and sort according to particular issue
- Present our own findings in an intuitive manner
- Create an interactive community component allowing for comments and participation from visitors
Our team

- **Jacob Fleming**
  - Major: Biological Sciences, Chemistry
  - Minor: Philosophy

- **Jessie Hart**
  - Major: Environmental Science
  - Minor: Psychology, Education

- **Joey Ottolenghi**
  - Major: Psychology
  - Minor: Biology, Chemistry

- **Alex Saucedo**
  - Major: Electrical Engineering (Biomedical Specialization)
  - Minor: Chemistry, Mathematics

Above: There is no “STEM” in “TEAM”. But there is ¾ of it, so it’s pretty close.
So far...

- Central website and blog: stemfuturedallas.blogspot.com
  - Domain coming soon!
  - Blog posts on our project and current issues

- Facebook: facebook.com/stemdallas
  - Visibility of project to SMU students and others

- Twitter: @STEMDallas
  - Frequent news updates pertaining to STEM issues and our project
Future of the project

- Launch full website and domain
- Update social components consistency
- Survey and interview SMU students
  - Fall: Survey and interview high school students
- Summer: Gain perspectives from industry experts
Summer

- Jacob: UT Southwestern Research Fellow
  Biomedical research and health care

- Jessie: Breakthrough Houston: 7th Grade Life Sciences
  Primary education in STEM

- Alex: Texas Instruments Applications Engineer
  Engineering and industry

- Joey: SMU-in-Italy Study Abroad
  Living the dream (and designing surveys)
  Living with spotty Italian WiFi
STEM Future Dallas

http://stemfuturedallas.blogspot.com

www.facebook.com/STEMDallas

www.twitter.com/STEMDallas

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Welcome to the future...

STEM Future.

...Dallas.

Science! Synergy! Results!