Active Recruiting

Leslie Cintron, PhD
Research Scientist
University of Virginia
Active Recruiting - Outline

• Craft messages → ICBI
  • Interest
  • Confidence
  • Belonging
  • Identity

• Persuade personally
Fight the status quo
Active Recruiting

• Craft messages
• Reach out
• Raise visibility
• Persuade personally
Why Active Recruiting?

It Works!
Data from CS Teachers Who Have Used Active Recruiting

<table>
<thead>
<tr>
<th></th>
<th># Change</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS AP</td>
<td>401</td>
<td>48%</td>
</tr>
<tr>
<td>CS AP Girls</td>
<td>107</td>
<td>73%</td>
</tr>
<tr>
<td>CS AP URM</td>
<td>71</td>
<td>53%</td>
</tr>
<tr>
<td>CS non AP</td>
<td>684</td>
<td>18%</td>
</tr>
<tr>
<td>CS non AP Girls</td>
<td>372</td>
<td>40%</td>
</tr>
<tr>
<td>CS non AP URM</td>
<td>208</td>
<td>22%</td>
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</tbody>
</table>
How to Craft Messages: ICBI

Confidence

Belonging

Interest

Identity

Choice of Occupation
Ignite your students’ interest
Describe careers that spark diverse student interest

- Flexibility: industry, geography
- Time with family
- Job projections
- High salaries
- Work with others
- Socially relevant
- Satisfied professionals
## Appeal to Students’ Current Interests & Goals

### Majors Most Commonly Intended by Women in the U.S., 2013

<table>
<thead>
<tr>
<th>Major</th>
<th>Students, 2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Professions</td>
<td>193,089</td>
</tr>
<tr>
<td>Business Management/Marketing</td>
<td>67,916</td>
</tr>
<tr>
<td>Visual &amp; Performing Arts</td>
<td>59,358</td>
</tr>
<tr>
<td>Biological &amp; Biomedical Sciences</td>
<td>58,974</td>
</tr>
<tr>
<td>Psychology</td>
<td>51,446</td>
</tr>
<tr>
<td>Education</td>
<td>50,474</td>
</tr>
<tr>
<td>Undecided</td>
<td>49,244</td>
</tr>
<tr>
<td>Computer &amp; Information Sciences</td>
<td>4,700</td>
</tr>
</tbody>
</table>

Source: College Board
Making Messages Meaningful: Students’ Interests

- Scanning DNA for childhood diseases
- Designing and displaying new fashions
- Restoring and preserving art work
- Designing secure databases to record human rights abuses while shielding the identities of victims or witnesses

Source: dotdiva.org
Fun Can Be Enough!

- Not all students are thinking of the future, jobs
- Make it clear your course will be interesting and fun
How to Craft Messages: ICBI

Confidence

Belonging

Interest

Identity

Choice of Occupation
Cultivate Confidence
Cultivate Confidence

• Showcase successes of current & former students
• “You’d be great at this”
• “I want you in my class”
• Provide opportunities for experiencing success
• Describe how the course promotes success
Emphasize Growth in Intelligence

See Carol Dweck’s work
How to Craft Messages: ICBI

Choice of Occupation

- Confidence
- Belonging
- Interest
- Identity
Build belonging, inclusivity
Build belonging, inclusivity

- Recruit in groups
- Have friends recruit friends
- Use inclusive language
- Set-up a welcoming physical environment
- Tell them you want them to study computing
How to Craft Messages: ICBI

Choice of Occupation

Confidence
Belonging
Interest
Identity
Active Recruiting - Instill Identity
Active Recruiting - Instill Identity

Describe Opportunities and Promote Involvement
Describe Opportunities and Promote Involvement

✓ Community Service and Outreach
✓ Conference attendance
✓ Poster presentation
Active Recruiting - Instill Identity

Provide Intentional Role Models
Intentional Role Models to Help Build Identity
How to Craft Messages: Capitalize on ICBI

Choice of Occupation

Confidence
Belonging
Interest
Identity
How to convey your messages
Avoid “Mythbusting” Don’t plant weeds!

- May actually create stereotypes
- Once implanted, difficult to dislodge
Show Statistics

- Salaries are High
- Jobs are Plenty
- Careers are Satisfying
Computer Scientists Work in Every Industry

- I design how animated characters move on film.  
  Kendall Sager  
  Animation/Film

- I created a smartphone app for art museum visitors.  
  MaCherie Edwards  
  Art History/Education

- I develop computer simulations that increase our knowledge of nearby galaxies.  
  Gutina Besla  
  Astronomy

- I help bring high-speed Internet to disadvantaged communities around the world.  
  Clarie Liqun  
  Communications/Internet Technology

- I develop software for a cochlear implant that will help people who are deaf to hear.  
  Sahryn Gambaro  
  Disabilities

- I create 3-D fashion design software.  
  Anamary Leal  
  Fashion & Design/Computer Graphics

- I develop software that can design easy-to-build shelters for victims of disasters.  
  Claudia Gold  
  Humanitarian & Disaster Relief

- I research ways to fight cybercrime and identity theft.  
  Tylica Shields  
  Internet Technology/Forensics

- I developed a "virtual nurse" for hospital patients.  
  Laura Plofaer  
  Medicine
PERSONALLY PERSUADE
Overcome Objections

- Use student’s names
  - When students raise objections?
    - Listen and acknowledge beliefs
    - Offer persuasive evidence
    - Encourage and support
Don’t let refusal be permanent

Can we talk again before you choose your courses for next term/year?
Don’t let refusal be permanent

If not now, .... consider CS next semester/term/year.

Anytime
References

• Tapestry thanks Joanne McGrath Cohoon (University of Virginia; NCWIT) and Lecia Barker (NCWIT; University of Colorado at Boulder) for their important contribution to the content in this presentation.
Resources

- Image on the slide 31, Make your Course projects visible: [http://ncnewschools.org/blog.games-with-a-purpose-938]
- Provide intentional role models to help build identity
  - Asian women: Feifei Li, an As one of the leaders in the world for A.I (Artificial Intelligence), an Associate Professor at the Computer Science Department at Stanford University. [https://www.ted.com/talks/fei_fei_li_how_we_re_teaching_computers_to_understand_pictures](https://www.ted.com/talks/fei_fei_li_how_we_re_teaching_computers_to_understand_pictures) [http://vision.stanford.edu/feifeili/](http://vision.stanford.edu/feifeili/)
Questions?
Show Statistics: Salaries are High

Associate's Degrees by Median Salary

Bachelor's Degrees by Median Salary
Show statistics: Jobs are Plenty; Jobs are satisfying

**Best Jobs in America**” Reports*

<table>
<thead>
<tr>
<th>Source</th>
<th>Rank Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>US News</td>
<td>5 of top 15 (including #1 and #2)</td>
</tr>
<tr>
<td>Salary.com</td>
<td>2 of top 10 (including #1)</td>
</tr>
<tr>
<td>CNN Money</td>
<td>3 of top 10</td>
</tr>
</tbody>
</table>

*Based on job satisfaction, stability, and salary
Reach Out to Your Audience

- Use media such as posters, announcements, videos
- Show up at orientation, elective fairs
- Connect current students with prospective students
- Other teachers, parents, guidance counselors, career placement personnel
- Collaborate with clubs, sports teams
- Social media
Make computer science VISIBLE

CS for You
Make Your Course Projects Visible

- Posters
  - outside classroom
  - in the library
- Webpages
- Events
NCWIT Award for Aspirations in Computing raises visibility for your program & students

ncwit.org/award