Mastery Education Update

Welcome Kelly Brady

• Director of Mastery Education at the SDE
**PROS**

- Would allow us to apply for certain grants
- Would allow us to participate in the Idaho Gives Campaign
- Link to Utah’s proposed foundation, paperwork filed May 5, 2016:

**CONS**

- Formation will require legal assistance to file for certificate of incorporation, etc.
- Must form a unique Board of Directors, hire a Director, create bylaws, mission/vision, personnel manual, EIN, office location and equipment and insurance plan
- Must comply with separate IRS tax filings
- Must keep a distinct and separate accounting spreadsheet and bank records (cannot be overseen by state financial services)
- Cannot bill any administrative costs to the STEM Action Center
- Must develop a unique fundraising plan

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**501 c3 Status**
# Potential 501c3 Partners

**Partners**

- Idaho Community Foundation
- Idaho After School Network
- Idaho Science Teachers Association
- Idaho Math, Science and Technology Coalition

**Roles**

- STEM Action Center will co-author grants
- STEM Action Center can be a sub-grantee for any awarded funds
**RECEIVED - $72,000:**

- Family STEM Events - Micron Foundation ($10,000) and Tesoro Foundation ($24,000)
- AT&T Grant for STEM summer coding camps for HS students ($20,000)
- INDEEDS Awards ($8,000 from various companies including Micron, HP and Idaho Power)
- Pi Day Fundraiser (~$10,000)

**DID NOT RECEIVE:**

- INCLUDES (3 different groups) – with BSU, with Utah STEM Action Center and STEMx
- Youth Skills Grant – with the State Board, SDE and CTE

**APPLIED FOR:**

- STEM Academy and Hearst Foundation
- MHSD and CS in XQ Super Schools Project Grant
- Glanbia Grant for FabSLAM Showcase event travel
- FIRST Community Grant
  - With Idaho After School Network, FIRST, Girl Scouts, BSU, ISU and STEM Idaho
- We have also been approached by a number of foundations (Jager and Lemelson)
- Also in discussion with ITC, Idaho Power, HP, Verizon and Cable One, etc.
Tracking Indirect Funds

• Working on a tracking system to determine how our support has been a catalyst to bring in additional funds to various events

• We want capture revenue that does not necessarily flow through the Center

• For example, FIRST Regionals Competition
  • Our $50,000 donation helped spur an additional $100,000 in industry donations

• We are also co-authoring numerous grants where the funding will not run through the Center, but our involvement may make it more likely that we will secure these funds.
Computer Science
Program Manager Update

• We received 25 applications from April 2 – April 29
• We conducted phone interviews for our top 9 candidate
• We will host in-person interviews for our top 4 candidates the week of May 23rd.
• We will offer the position late May/early June
• July 5th is the anticipated start date
Strategic Planning and Long-Term Goals – Beginning Discussion

• See Handouts
• DUE: July 1 (It’s the Law)
• Each Agency creates its own template (requirements vs optional with various layouts and designs)
  • See Handouts
• Doodle Poll Forthcoming
  • Level of involvement: Electronic Reviewer
  • In-Person Meetings: Week of May 31 and Week of June 13
    • Attend one, both or neither
Metrics to Measure Outcomes/Impact

As Dictated in §67-823, the Center shall track and compare growth of students participating in Center activities to those that do not in the areas of:

• Number who are performing at grade level in STEM classes

• Student performance

• Graduation rates

• Number who graduate from Idaho and begin post-secondary programs

• Number that take STEM education courses at higher education institutions

• Number of educators receiving high-quality professional development
Additional Metrics to Develop

- Assessment subpopulations breakdown (ISAT, NAEP, SAT/ACT)
- Growth data in student growth percentile (SGP)
- Gap analyses including assessments (NAEP and ISAT) and industry
- Industry needs assessment including educators
- Work with State Board of Education regarding metrics of the STEM Statewide Strategic Plan
- Qualitative variables related to STEM Family Nights and Educator Grants (Intern and Northwest Education)
  - Student impact surveys including assessments
  - Pre- and post-surveys on STEM attitudes and STEM awareness
  - Communities of practice to share best practices
Microsoft Imagine Academy Update

Welcome Rick Kennedy

IT Coordinator for
Microsoft Imagine Academy at the SDE
LearnStorm – Saturday, May 14

https://www.khanacademy.org/youcanlearnanything
FabSlam Overview

NATIONAL 3D PRINTING COMPETITION FOR YOUTH

Idaho, Pittsburg, and Baltimore

FabSLAM by the numbers:
✓ 14 Schools
✓ 76 Students
✓ 24 Mentors
✓ 5 Judges

GOALS
• Introduce educators and youth to 3D printing
• Build 3D printing expertise across the country
• Provide youth with design cycle experience (design, market research, prototyping, iterating)
FabSLAM Showcase Event at DCI
May 14, 2016

1st Place and Students’ Choice Award: Lone Star Middle School, Nampa
HELP -- Homeless Emergency Life Pack

http://fabslamlsms.weebly.com
2nd Place: Hawthorne Elementary School, Boise Fruit Fly Trap
http://elemengineers.weebly.com/
3rd Place: Kuna Middle School, Kuna
Irrigation Canal Filter
https://sites.google.com/a/kunaschools.org/3d-fabslam-contest-template/home/coderbunnies-1

**Our Product**

- Kuna Canal Irrigation Filter
- Goes through a Multi Step Filtration
- Keeps almost everything (except bacteria) unhealthy out of your water.
- Perfect for open canals
- Can be adjusted for different elevations.
Draft Budget Discussion

STEM and Computer Science

HANDOUTS
## Analysis by Project

<table>
<thead>
<tr>
<th>BY PROJECT</th>
<th>STEM</th>
<th>CS</th>
<th>TOTAL</th>
<th>Percentage</th>
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<td>4,091,000</td>
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# Projects and Programs

$2M Ongoing, General Fund

<table>
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<tr>
<th>Amount</th>
<th>Description</th>
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</table>
| $100,000 | • Conduct needs and gap analyses of industry and education  
|          | • STEM Action Center program evaluation                                      |
| $275,000 | • K-16 STEM education  
|          | • Coordinate workforce needs with K-16 STEM education                        |
| $150,000 | • Database creation  
|          | • Professional development, competitions, grants, scholarships and resources for educators and workforce |

**CUMULATIVE TOTAL:** $525,000
Projects and Programs
$2M Ongoing, General Fund

$500,000
• Support high-quality STEM professional development
• Support scholarships for STEM education or training

$250,000
• Support PK12 STEM grants for educators
• Includes resources and curricular materials

$100,000
• Support community STEM events
• Encourage community engagement and industry involvement

CUMULATIVE TOTAL: $1,375,000
Projects and Programs
$2M Ongoing, General Fund

$250,000

• Intel Science & Engineering Fair (Post-secondary & industry)
• Grant for students

$250,000

• National competitions
• FIRST Robotics, Invent Idaho, Science Olympiad
• Other competitions

$125,000

• Engage industry to support mentorship & internship programs
• Create actionable database connecting educators & industry

CUMULATIVE TOTAL: $2,000,000
Intel Science and Engineering Fair Update

• Will partner with BSU, U of I, ISU this first year (venue and judges)

• We have formed a working group of 12 individuals
  • 9 will be PT contractors: 1 PD, 3 Regional Fair directors, 1 university liaison; 1 grants coordinator, 1 website development, 1 volunteer/judges coordinator; 1 mentor organizer
  • PD will occur the first 2 weeks of August in each region; 20-30 educators each with $3,000 for stipend, travel to PD and student travel to Fair + Fair supplies

• Need to work on industry support

• Need a communications plan (PD invite and grant application and Fair)

• Fair will occur late Feb/early March in each Region

• We will send 3 regional winners to Nationals (9 total)
Collaborate to Support Idaho Educators

$250,000
Support CS endorsements and training through scholarships and incentives

$250,000
Support PD for educators

$250,000
Support resources for schools through grants

$500,000
- Support online CS resource portal
- Support curricular materials linked to K-12 CS Standards
- Support grants for software and devices

TOTAL: $1M
Collaborate to Support Idaho’s Workforce

Work with Idaho’s Post-Secondary Institutions

- Develop CS training and courses for workforce
  - Workforce development such as providing scholarships for CS degrees
- Provide incentives for training including certificates & credentials
- Develop robust mentorship and internship programs
  - Work with industry & post-secondary to provide incentives for mentorship & internship programs

CUMULATIVE TOTAL: $2M
Topic Feedback
Ranked in order from SurveyMonkey

1) Computer Science & Portal Development — IDLA
2) Intel Science and Engineering Fair
3) Code.org and Computer Science
4) Microsoft IT Academy — SDE
5) Mastery Advancement Program — SDE
6) STEM Works as model for vetting STEM programs
7) FIRST Robotics
8) TIPPS Camp (first generation college students)
9) KISS Institute for Practical Robotics
10) Project Lead the Way
11) Million Women Mentors
12) NCLB vs ESSA
Public Comment
Upcoming Events

• Doodle Poll Going out tomorrow –
• Early August, 1:00-4:00pm