2019 DifferenceMaker
$50K Idea Challenge

Workshop 1: Identifying Problems

February 19
Lydon Library, Room 110, North Campus
5:30-7:30 p.m.
Agenda

5:30  Introduction: Idea Challenge, Idea Plan, Problems you want to solve

5:45  Sharing Ideas and Team Building
      What Makes a “Good” Problem?

6:15  Activities:
      Team Brainstorming around Problems
      Pitching Problems

7:15  Next Steps
2019 $50K Idea Challenge

• 52 applications this year!
• All 6 colleges participating
• New products & new services
Now What?

• ~10 weeks to the Idea Challenge!
  • Preliminary Pitch-off: April 10
  • $50K Idea Challenge: April 24

Prepare:

• Build your Team
  • TeamMaker (we will talk more about this)
• Attend the workshop series (see postcard)
• Research your Problem, Opportunity, Solution and Resources
  • Use the DifferenceMaker Toolkit (template given out and found online on the resource page) – Today we’re focusing on page 1 - Problem
• Develop your Idea Plan and Rocket Pitch: Due March 4
  • Idea Plan template given out and found online – through email or logging into Manage Your TeamMaker Page, and clicking on “Start Idea Plan”
  • Rocket pitch template found online – Idea Challenge
• Develop a Poster (template found online – Idea Challenge): Due March 29
• Then impress the judges!
LIFE as a DifferenceMaker

UMass Lowell Resources:
- Chancellor 20/20 Grants
- Innovation Hub
- Makerspace
- Office of Technology Commercialization
- River Hawk Fund

Other Funding Opportunities:
- ASME Innovation Showcase
- Clinton Global Initiative
- EforAll
- Grants
- Intel-Cornell Cup Competition
- MassChallenge
- MassVenture Pitch Contests
- Small Business Association
- VentureWell

Start Here!

Do you have a problem you want to solve? Apply to win $75K in funding!
Fall:
- College-based Competitions
  - Business
  - Engineering
  - FAHSS
Spring:
- $50K Idea Challenge

Pitch Your Idea

Boot Camp & Mentors

DifferenceMaker will help you:
- Identify problems
- Assess opportunities
- Develop solutions
- Determine resources

Other Campus Resources

Hard Work & Success!

Lydon Library
DifferenceMaker Central
Suite 012
North Campus
84 University Avenue
Lowell, MA 01854
uml.edu/differencemaker
Team

- DifferenceMaker Faculty Fellows
  - Prof. Iman Chahine, Graduate School of Education
  - Prof. Michael Ciuchta, Manning School of Business
  - Prof. Mazen El Ghaziri, College of Health Sciences
  - Prof. Hunter Mack, Francis College of Engineering
  - Prof. Mike Nourai, Kennedy College of Science
  - Prof. Brent Shell, College of Health Sciences
  - Prof. Neil Shortland, Fine Arts, Humanities and Social Sciences
  - Prof. Michelle Veilleux, Fine Arts, Humanities and Social Sciences

- Holly Butler, Ha Pho
- Enterprise Co-op Scholars
- Support of many others!

@difference_uml
DifferenceMaker Research Study

- Professor Karoline Evans
  – Manning School of Business
Guest Speakers

• Professor Iman Chahine
  – College of Education

• Professor Mazen El Ghaziri
  – Zuckerberg College of Health Sciences
OUR IMPACT

HOW WE'VE REACHED UML

$280,000
AWARDED TO STUDENTS

$200,000
STUDENT STARTUP REVENUE

$1.3 MILLION
RAISED BY TEAMS

4
DEDICATED ENTREPRENEURIAL SPACES

8
TEAM PATENTS FILED OR ISSUED

73
WINNING TEAMS

3,259
STUDENT PARTICIPANTS 2017-2018

19
COMPANIES FORMED BY TEAMS
What’s an Idea Plan?

• A 2-3 page project summary outlining:
  – **Problem** you are addressing
    • Why is it important? Who cares?
  – **Opportunity** associated with solving that problem
    • How big? How many? How much? How else?
  – **Solution**
    • Specifically -- how will you address this problem?
  – **Resources** – What do you have? What do you need? If you receive DifferenceMaker funding, how and when will you spend it?
    • Budget and Timeline

• Based on Research, **NOT** your opinion
• Use the DM Toolkit to help you!
• Idea Plan Due March 4
  – Through email or log into Manage Your TeamMaker Page, and click on “Start Idea Plan”
| Problem | Clearly state the problem addressed by the team’s solution.  
|         | • How significant is the problem?  
|         | • Who is affected by the problem?  
|         | • Why is it important to solve this problem? |
| Tonight | Demonstrate your knowledge regarding the opportunity associated with addressing this problem.  
|         | • How many people are affected by this problem? Who are they?  
|         | • How is this problem currently addressed? By who?  
|         | • Why is your team uniquely qualified to address this problem? |
| Opportunity | Describe your proposed solution.  
|           | • Clearly explain your solution to the problem  
|           | • Why did the team choose this solution?  
|           | • What differentiates your solution from other solutions?  
|           | • How will you sustain your solution?  
|           | • What are the costs and benefits associated with your solution? |
| Solution | Identify the resources (physical, knowledge, human, financial) and budget required to develop and implement your solution.  
|          | • How will these resources be acquired and used?  
|          | • Present the road map for implementing your solution including key milestone, risks and risk mitigation techniques. |
| Feasibility & Resources |
Education and Implementation of the BioBubbler in Haiti

It is heart wrenching to see children suffer from a disease we, in first world countries, see as a nuisance before taking medication to quickly relieve the side effects. This was the case when I traveled to Haiti in January 2014. On my trip, I learned what it was like to live in true poverty and wonder day-to-day if there would be clean water available. I saw children walking miles to find water that was surrounded by garbage or sewerage. Water is a necessity for all human life but in third world countries can also be a death sentence. In Haiti, only 40-45% of the population has access to clean drinking water [3]. The remaining 55% of the population consumes contaminated water, resulting in the fourth leading cause of death, diarrhea. Diarrhea kills 712,180 people or 7.8% of the Haitian population each year [3]. Third world countries, such as Haiti, lack the technology and money to obtain clean water. It has been found that approximately 2.4 million deaths globally could be prevented each year if every person had clean drinking water [2].
What Makes a Good Problem?

• A problem that matters to you, and to others
• Typically a problem with some social importance
• A problem that maps to the DifferenceMaker award categories
  • Campus-wide DifferenceMaker
  • Significant Social Impact
  • Contribution to a Healthier Lifestyle
  • Innovative Technology Solution
  • First to Market
  • Honorable Mention

• We want to engage all students and all ideas!
Real-life DifferenceMaker Team Problems

The Problem: Food Insecurity

- National food insecurity was 14.9% in 2012
- 10% increase in low-income students at UMass Lowell
- Hunger is a barrier to graduation

Support Our Students
Campus-Wide DifferenceMaker, 2014

https://www.theytube.com/watch?v=nx1breiutvg
Real-life DifferenceMaker Team Problems

Masela Denture
Innovation Technology, 2015

Need

Current dentures are too expensive

- 35 million people
  - 15% seeking treatment
  - 30 million untreated
- Socio-economic toll
  - 65% below poverty line, perpetuating stigma
  - Lack of dental insurance
  - Correlation to unemployment, depression, and malnutrition

Current Denture Solutions

- Expensive
  - Quality dentures $4,500-$8,000
- Labor Intensive
  - Requires skilled laborers
  - Complex manufacturing processes
- Patient & Dentist Dissatisfaction
  - 5-10 follow up appointments
  - Low profit margins
Real-life DifferenceMaker Team Problems

QBell
Contribution to Healthier Lifestyle, 2017

Current Flaws
- Current system = single button
  - Inefficient
  - Slow response time
- Out of date systems
- Not user friendly
Real-life DifferenceMaker Team Problems

**ADOLESCENT STATISTICS:**

- 69% of teens regularly receive personal messages online from strangers, most of them do not tell a trusted adult about it (American Psychological Association).
- 25% of teens in the U.S. have visited hate websites (JIE and LETS 2020).
- 14% have searched how to make a bomb (JIE and LETS 2020).

**OPERATION 250 BASIS:**

- Lack of education
- Increased naivety/vulnerability
- Higher risk for exposure to sensitive material
Activity #1: Who has a Problem?
Define your Problem & Build a Team

- In 1 minute:
  - Introduce yourself – name, major, year in school
  - State the problem you want to solve
  - Do you need additional teammates to help you solve that problem?
    - If so, who do you need? (skills, expertise, etc.)
    - Persuade potential team members to choose your problem
  - OR
  - Introduce yourself – name, major, year in school
  - State the type of problem you want to solve/your interests (wanting to join a team)
  - What are your skills?

- In 2 Minutes:
  - Write your problem on poster paper, stick it on the wall, and stand by it (if you have a problem). If you don’t, wait for the next instructions.

- 5 Minutes
  - DifferenceMakers: Walk around, talk to people about their ideas and your ideas, join a team and/or build a team!
Still Haven’t Found What Your Looking For?

- Pick a team for *tonight*, but keep searching for a team and additional teammates – through TeamMaker and DifferenceMaker events

- Visit TeamMaker: Team building platform
  - [www.uml.edu/ideachallenge](http://www.uml.edu/ideachallenge)
  - Click TeamMaker link
  - View the lists
  - Log in with your student credentials
  - Input your information

- Find additional teammates: *Build a Team*
- Join a team: *Seeker*
- Connect with them!

Engineering and Health students work in teams to solve a problem.
Activity #2: Refine your Problem as a Team

• Go to the problem you’re most interested in
• You should now have a problem to focus on

• 10 Minutes!
• Use the Toolkit problem worksheet – page 1!
• Clearly state the problem you want to solve
• Discuss who you think is affected by your problem
• It will then be defined with your research
  – Specifics count here!
  – Who? How many? Demographics?
  – How are they affected?
  – Take a guess if you don’t know
    • It will then be defined through your research
• How important is it to solve this problem?
• Why is it important is it to solve this problem?

You are Brainstorming
There is NO Wrong Answer
Activity #3: Tell us About Your Team and Your Problem

• 2 Minute Pitch
  • Introduce your team – names, majors, years in school
  • Tell us about the problem you are working to solve!
  • What do you know/assume about the problem so far?
  • Do you need additional help, skills or team members?
    • If so, explain.
Next: Test your Assumptions

- Talk to at least 20 people who are affected by your defined problem
- Utilize the Library Databases
  - Contact Donna Mullin, Business Reference Librarian
  - Lydon Library, 2nd Floor – North Campus
  - Donna_Mullin@uml.edu, 978-934-4579
- Talk to DifferenceMaker Faculty Fellows
  - www.uml.edu/DifferenceMaker/Faculty
- Talk to your Peers
- Talk to DM Staff - Holly and Ha!
- Use the DifferenceMaker Resource Page
  - www.uml.edu/DifferenceMaker/IdeaChallenge
  - Click on the Resource tab
Deliverables By Feb. 21

• Talk to **at least 15 people** related to your problem about the problem and be sure to **capture the data**!
  • Survey: Develop a list of 5-10 questions to ask them

• Use the DM Toolkit Problem Worksheet to Research and Capture:
  • Who is affected by the problem? How many?
  • Why is it important to solve this problem?
  • What bothers people the most about the problem?
  • How do they solve this problem now?
  • Who else has attempted to solve the problem?
  • How effective are current solutions/attempts?
•This workshop series will help you build your team and prepare you for the $50K Idea Challenge in April!

•All Workshops:
  •Location: Lydon Library, Room 110
  •Time: 5:30 – 7:30 p.m.

•Food will be served!

<table>
<thead>
<tr>
<th>Date</th>
<th>Workshop</th>
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<tbody>
<tr>
<td>Feb. 19</td>
<td>Workshop 1: Identifying Problems</td>
</tr>
<tr>
<td>Feb. 21</td>
<td>Workshop 2: Assessing Opportunities and Value Propositions</td>
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<tr>
<td>Feb. 25</td>
<td>Workshop 3: Developing Business Models</td>
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<td>Feb. 27</td>
<td>Workshop 4: Delivering your Rocket Pitch</td>
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## Deadline Dates

<table>
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<tr>
<th>Date</th>
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<tr>
<td>Mar. 4, 5 p.m.</td>
<td>Idea Plan is Due</td>
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<td>TeamMaker – Manage –</td>
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<td>Start Idea Plan</td>
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<td>Mar. 18, 5 p.m.</td>
<td>Semi-Finalists are Announced</td>
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<td>Mar. 29, 5 p.m.</td>
<td>Revised Idea Plan, Rocket Pitch PPT, and Poster are Due</td>
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<td>TeamMaker – Manage –</td>
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<td>Start Idea Plan</td>
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<td>April 10, 1:30 – 6 p.m.</td>
<td>Preliminary Pitch-off!</td>
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<td>April 24, 5 – 8:30 p.m.</td>
<td>$50K Idea Challenge</td>
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Idea Plan and Rocket Pitch

• Judges want to see more research and data!
• Judges want to know that you understand what it will take to actually solve the problem and implement your solution

• Review the Idea Plan handout
  • Due March 4
  • Semi-finalist revised plans: Due online, March 29

• Helpful Tip: As you go through the workshops and process, fill out your Toolkit and Idea Plan
Recap: What’s Next?

- Talk to **15+ people** who are affected by your problem
  - Gather data and research (library database, talk to people...)
- Fill out the *DifferenceMaker Toolkit Problem Worksheet*
- Look at the Idea Plan template and fill it out as you go
  - Due online, March 4
- Attend Workshop 2: Assessing Opportunities and Value Propositions
  - Facilitators: Prof. Brent Shell, Zuckerberg College of Health Sciences; Prof. Neil Shortland, FAHSS; Prof. Mike Nourai, College of Sciences
  - Feb. 21, 5:30-7:30 p.m., Right here! Lydon Library, Room 110, North Campus