

A large crowd of students in a gymnasium, many wearing blue shirts, holding up signs that spell out "DIFFERENCE MAKERS". The students are densely packed, and the background shows gymnasium bleachers and structural beams.

D I F F E R E N C E M A K E R S

2019 DifferenceMaker \$50K Idea Challenge

Workshop 1: Identifying Problems

February 19

Lydon Library, Room 110, North Campus

5:30-7:30p.m.

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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

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2019 \$50K Idea Challenge

- 52 applications this year!
- All 6 colleges participating
- New products & new services



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Now What?

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

Prepare:

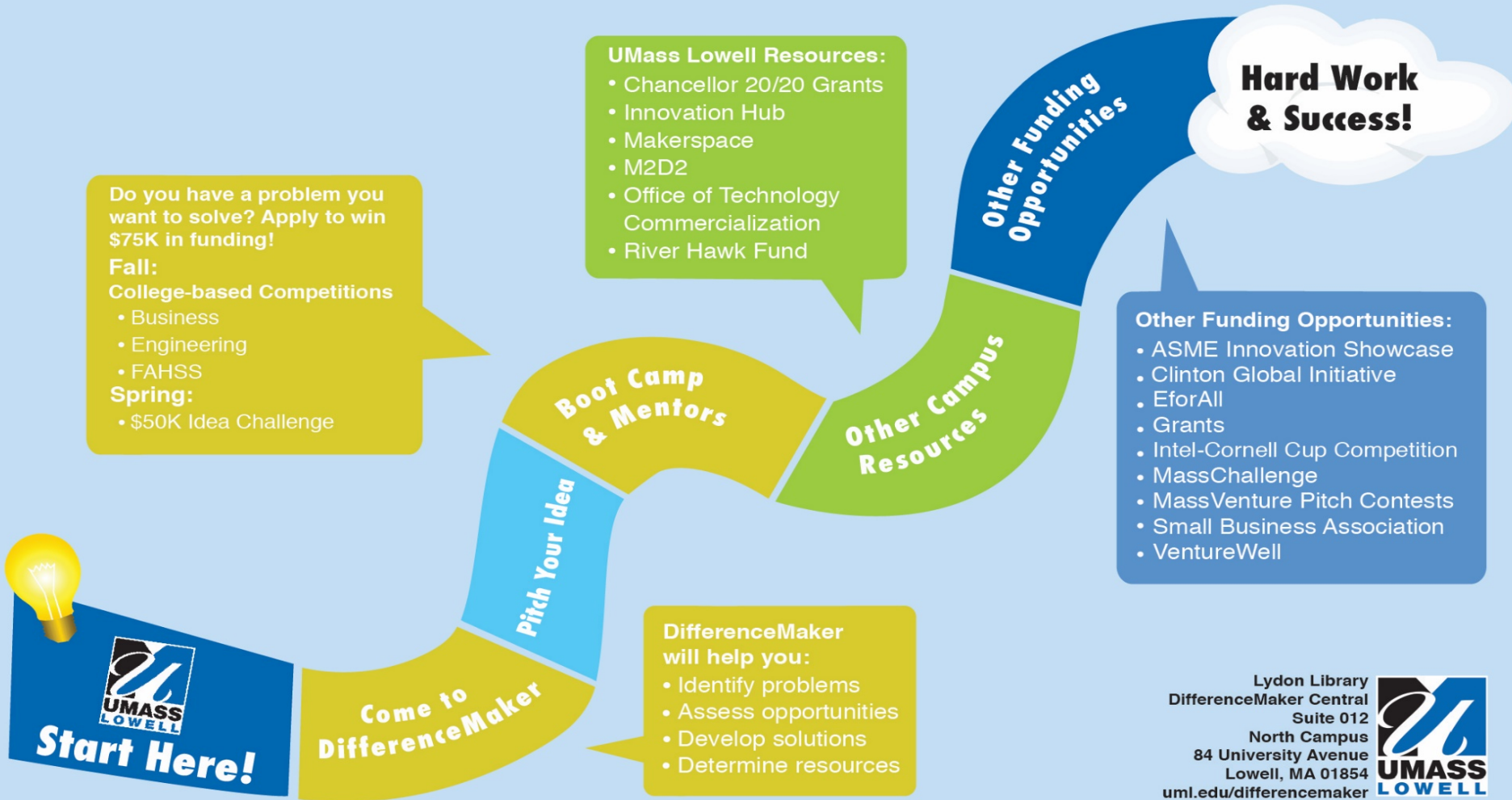
- Build your Team
 - TeamMaker (we will talk more about this)
- Attend the workshop series (see postcard)
- Research your Problem, Opportunity, Solution and Resources
 - Use the DifferenceMaker Toolkit (template given out and found online on the resource page) – Today we're focusing on page 1 - Problem
- 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!



Team Guardian impresses the judges
at the 2017 Idea Challenge

LIFE

as a *Difference*Maker[®]



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

UMass Lowell Resources:

- Chancellor 20/20 Grants
- Innovation Hub
- Makerspace
- M2D2
- Office of Technology Commercialization
- River Hawk Fund

Boot Camp & Mentors

Other Campus Resources

Other Funding Opportunities

Hard Work & Success!

Other Funding Opportunities:

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

DifferenceMaker will help you:

- Identify problems
- Assess opportunities
- Develop solutions
- Determine resources

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



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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



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DifferenceMaker Research Study

- Professor Karoline Evans
 - Manning School of Business

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Guest Speakers

- Professor Iman Chahine
 - College of Education
- Professor Mazen El Ghaziri
 - Zuckerberg College of Health Sciences



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OUR IMPACT
HOW WE'VE REACHED UML

3,259

STUDENT PARTICIPANTS
2017-2018

19

COMPANIES
FORMED BY
TEAMS

\$280,000

AWARDED TO
STUDENTS



STUDENT STARTUP
REVENUE

\$200,000

\$1.3 MILLION



RAISED BY
TEAMS

4

DEDICATED
ENTREPRENEURIAL
SPACES

8

TEAM PATENTS
FILED OR ISSUED

73

WINNING
TEAMS

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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”



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DifferenceMaker Method and Idea Plan

Problem Tonight	Clearly state the problem addressed by the team's solution. <ul style="list-style-type: none">• How significant is the problem?• Who is affected by the problem?• Why is it important to solve this problem? 
Opportunity	Demonstrate your knowledge regarding the opportunity associated with addressing this problem. <ul style="list-style-type: none">• 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?
Solution	Describe your proposed solution. <ul style="list-style-type: none">• 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?
Feasibility & Resources	Identify the resources (physical, knowledge, human, financial) and budget required to develop and implement your solution. <ul style="list-style-type: none">• How will these resources be acquired and used?• Present the road map for implementing your solution including key milestone, risks and risk mitigation techniques.

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Idea Plan Example

Problem: From Simple to Defined

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].

Remember **BE SPECIFIC**

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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



BioBubler building
filtration systems in Haiti



Nonspec testing
prototype on patient in
India

- We want to engage all students and all ideas!

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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



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Real-life DifferenceMaker Team Problems

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

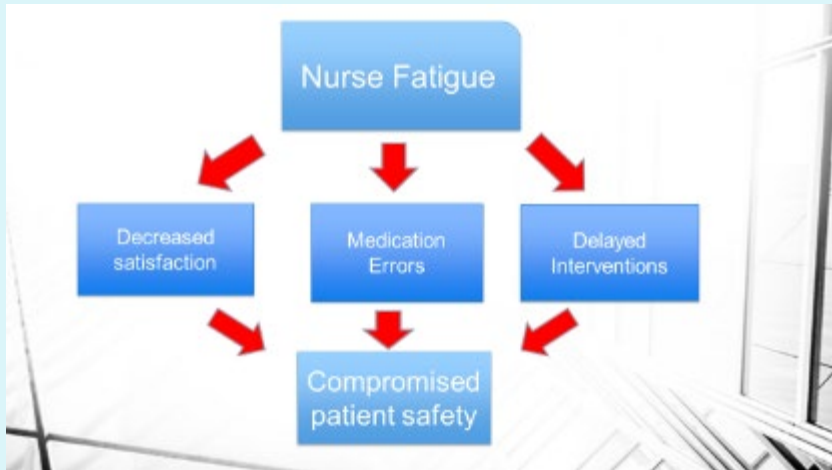


Masela Denture Innovation Technology, 2015



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Real-life DifferenceMaker Team Problems



QBell
Contribution to Healthier Lifestyle,
2017

Current Flaws

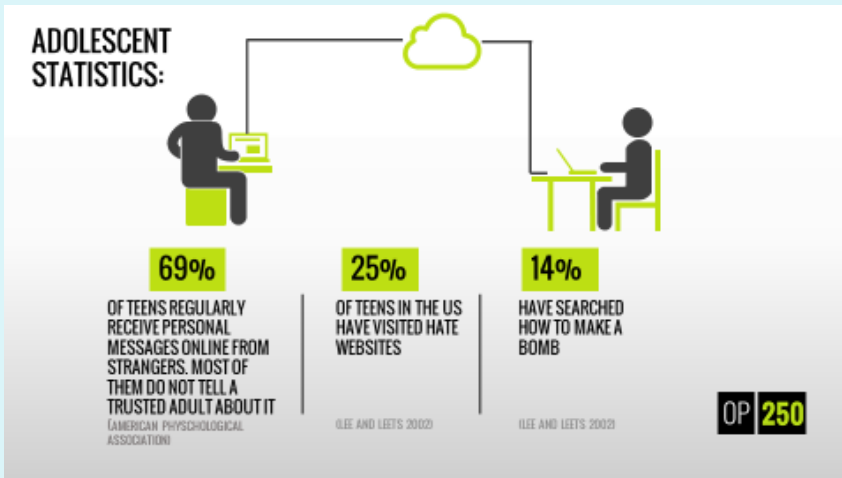
- Current system = single button
 - Inefficient
 - Slow response time
- Out of date systems
- Not user friendly

A diagram illustrating the transition from an old system to a new one. On the left is a grey, single-button remote control. Next to it is a small photo of a nurse and a patient. A blue arrow points to the right, where a smartphone is shown displaying a colorful app interface. To the right of the smartphone is another small photo of a nurse and an elderly patient.



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Real-life DifferenceMaker Team Problems



OP250
Campus-Wide DifferenceMaker,
2017



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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!

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Still Haven't Found What You're 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
 - 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.

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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



Support our Students, 2014 Campus-wide DifferenceMaker team, refines their problem in DifferenceMaker Central

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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.



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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



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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?

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Workshop Series

- 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!

Date	Workshop
Feb. 19	Workshop 1: Identifying Problems
Feb. 21	Workshop 2: Assessing Opportunities and Value Propositions
Feb. 25	Workshop 3: Developing Business Models
Feb. 27	Workshop 4: Delivering your Rocket Pitch

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Deadline Dates

Date	Deadline
Mar. 4, 5 p.m. TeamMaker – Manage – Start Idea Plan	Idea Plan is Due
Mar. 18, 5 p.m. Email	Semi-Finalists are Announced
Mar. 29, 5 p.m. TeamMaker – Manage – Start Idea Plan	Revised Idea Plan, Rocket Pitch PPT, and Poster are Due
April 10, 1:30 – 6 p.m. O’Leary Library, South Campus	Preliminary Pitch-off!
April 24, 5 – 8:30 p.m. University Crossing, Moloney Hall	\$50K Idea Challenge

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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



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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

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Connect With Us!

Email: differencemaker@uml.edu

Website: www.uml.edu/differencemaker



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