



# What is Entrepreneurship?

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Most of you will come to this course with some understanding of what entrepreneurship is, who entrepreneurs are, and what those entrepreneurs do. We develop those understandings because of the things we read and see in the media and the people we meet in our lives. As with so many things, our personal experience is often a small window into the field and may or may not reflect the larger picture that could be developed with more extensive experience.

In order to create that larger picture, we need to draw upon both a larger set of experiences (primary research) and upon the research and study done by others (secondary research) who have taken a systematic look at the field. This research has also shown that there are some widely held misconceptions (often termed “myths”) about entrepreneurs and entrepreneurship.

We will consider some example entrepreneurs. We will confront the myths, and we will try to develop a more accurate and evidence driven insight into entrepreneurship and entrepreneurs.

# Interesting Entrepreneurs

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- Bill Gates –Microsoft
- Harvard Dropout
- Computer whiz
- Wrote operating system for IBM
  - Because IBM was too cheap to license CPM
- Signed Giving Pledge and Created the Gates Foundation



# Interesting Entrepreneurs

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- **Mother Teresa**
- Agnes Gonxha Bojaxhiu
- Albanian
- Born in Macedonia
- Father an entrepreneur in construction and trading
- Social entrepreneur in India
- Founder of the Order of the Missionaries of Charity
- Jim O’Keefe, GE, Image systems, ILINC President, visited her during GE period and called Jack Welch to tell him how she had created an incredible charitable enterprise with amazing entrepreneurial skill.
- “As the ranks of her congregation swelled and donations poured in from around India and across the globe, the scope of Mother Teresa's charitable activities expanded exponentially. Over the course of the 1950s and 1960s, she established a leper colony, an orphanage, a nursing home, a family clinic and a string of mobile health clinics.”
- “By the time of her death in 1997, the Missionaries of Charity numbered over 4,000 -- in addition to thousands more lay volunteers -- with 610 foundations in 123 countries on all seven continents.” -<http://www.biography.com/people/mother-teresa-9504160>



# Nonspec -A student generated company

- Nonspec (previously known as Developing Nation Prosthetics) provides low cost, high functionality replacement limbs with an acceptable amount of customization for children in other nations.
- The team consists of Katherine Cain, Jonathan De Alderete, Brendan Donoghue, Sean Gibson, Olivia Keane and Erin Keaney with majors in plastics and mechanical engineering, as well as minors in business administration and history.
  - <https://www.uml.edu/Innovation-Entrepreneurship/DifferenceMaker/Meet-the-DifferenceMakers/DM-Nonspec.aspx>

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# THE SUN

WEDNESDAY  
June 10, 2015 Lowell, Massachusetts  
\$1.00

## Two floors, no ceiling on invention

UML business incubator opens in rehabbed canal district building

By Robert Mills  
rmills@lowellsun.com

LOWELL — Catherine Pujol-Baxley started on Tuesday about 9 a.m., the first scientist to work in the new research space at UMass Lowell's business incubator in the Hamilton Canal District.

The incubator is the first commercial property to open its doors in the Hamilton Canal District, a prominent part of the city at the edge of the downtown, long home to little but abandoned buildings and vacant lots. It makes its home on the top floor of the former Freudenberg Nonnovens mill at 110 Canal St.

Pujol-Baxley is director of research and development for KnipBio, a start-up that is engineering micro-organisms to improve the quality of food used in aquaculture, also known as fish farming.

UMass Lowell leases the top



**A PLACE TO EXPLORE:** Erin Keaney, co-founder and CEO of Nonspec, and Brendan Donoghue, right, a 2015 UML graduate who is an intern at Nonspec, show a prosthetic foot to UMass President Emeritus Jack Wilson at UML's new incubator at 110 Canal St. Below, from left, Steve O'Riorden, UML associate vice chairman for financial services, UML Government Relations Associate Colleen Brady and Director of University Events Rick Sherburne take in the view.

SUN PHOTOS / JULIA MALAKIE

two floors of the building, with 11,000 square feet of space on each floor meant to help grow start-ups in the biotech and medical-device fields.

The facility is home to two separate but related programs — the UMass Lowell Innovation Hub, on the fourth floor, and an extension of the university's Massachusetts Medical Device Development Center.

Please see **INCUBATOR/10**



# Interesting Entrepreneurs

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- Larry Ellison
- Founder of Oracle
- Dropout of both the University of Illinois and the University of Chicago
- Worked at various computing companies in California and then founded Software Development Laboratories -> Relational software  
->Oracle.
- Signed Giving Pledge along with Bill Gates, Warren Buffet and others.



## Interesting Entrepreneurs

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- Richard Branson
- 4<sup>th</sup> Richest in the UK
- Severe Dyslexic
- Virgin Records->Virgin Megastore
- Virgin Atlantic Airline
- Virgin Trains, Virgin Galactic
- Helped form and fund “The Elders” with Nelson Mandela and others who solve world problems.



# Mark Zuckerberg

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- Harvard dropout
- FaceMash
- Always a computer geek
- Gamer
- Some say socially inept
  - Others disagree
- Signed the Giving Pledge
- \$100 million to Newark Schools



# Andrew Carnegie

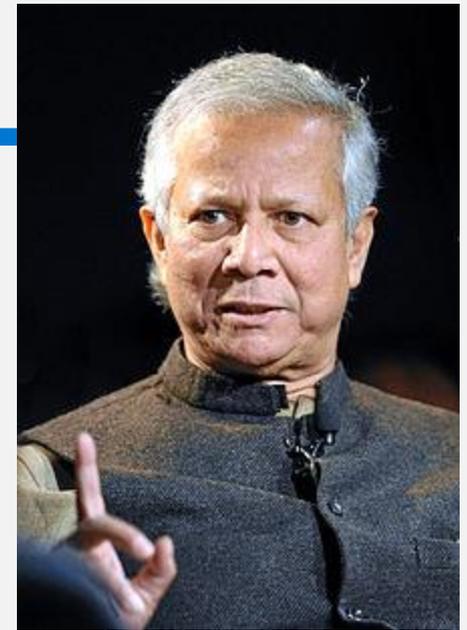
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- Born in Scotland
- Moved to Pittsburgh, PA
- Worked for what became the Pennsylvania Railroad.
- Carnegie Steel Corporation -> US Steel
- Made his wife sign a pre-nuptial agreement in which she acknowledged that he intended to give away his fortune rather than keep it in the family.
- Carnegie Libraries
- Carnegie Institute of Technology ->Carnegie Mellon University
- Carnegie Endowment for International Peace.



# Muhammad Yunus

- Bangladesh
- Chittagong College
- Dhaka College
- PhD Economics Vanderbilt
- Professor Economics in Bangladesh
- Founded profitable packaging company
- Invented microcredit and microfinance
- Nobel Peace Prize
- Founder of Grameen Bank
  - In the late 1980s, Grameen started to diversify by attending to underutilized fishing ponds and irrigation pumps like deep tube wells.[21] In 1989, these diversified interests started growing into separate organizations. The fisheries project became Grameen Motsho ("Grameen Fisheries Foundation") and the irrigation project became Grameen Krishi ("Grameen Agriculture Foundation").[21] In time, the Grameen initiative grew into a multi-faceted group of profitable and non-profit ventures, including major projects like Grameen Trust and Grameen Fund, which runs equity projects like Grameen Software Limited, Grameen CyberNet Limited, and Grameen Knitwear Limited,[22] as well as Grameen Telecom, which has a stake in Grameenphone (GP), the biggest private phone company in Bangladesh.[23] From its start in March 1997 to 2007, GP's Village Phone (Polli Phone) project had brought cell-phone ownership to 260,000 rural poor in over 50,000 villages.[24]
  - The success of the Grameen microfinance model inspired similar efforts in about 100 developing countries and even in developed countries including the United States.[25] Many microcredit projects retain Grameen's emphasis of lending to women. More than 94% of Grameen loans have gone to women, who suffer disproportionately from poverty and who are more likely than men to devote their earnings to their families



# Mary Kay Ash

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- Born in Texas
- Successful in sales, but angry when men were promoted over her
- 1963 - business plan for **Mary Kay Cosmetics**
- Founded with two sons
- Pyramid models of sales representatives.
- More than 100,000 Pink Cadillacs given out
- 6<sup>th</sup> largest direct sales
  - \$2.9 billion
- Wanted to help women to advance by helping them to help others.



# Steve Jobs

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- *Don't let the noise of other's opinions drown out your own inner voice. And most importantly, have the courage to follow your heart and intuition. They somehow already know what you truly want to become. Everything else is secondary.*
  - Steve Jobs
- Cofounder of Apple, NeXT, and Pixar
- Visionary of iPod, iPhone, iPad, iTunes, Macintosh, Apple II, etc.



## Mark and Elisia Saab

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- Mark and Elisia Saab ->
- UMass Lowell '81, Plastics Engineering
- Advanced Polymers -1989
- In 1988, Mark Saab '81 had a vision. A vision of a product that no one in the market was making: an ultra-thin walled medical tubing. Saab believed he could produce it and was confident the market would be there.
- And his wife Elisia believed in him.
- Sacrificing nights and weekends, while working two day jobs, she helped Mark turn his vision into one of the most respected companies in its field.
- Donor of over \$ million to UML Scholarships



## Harish Hande '98 '00

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- UML MS '98 renewable energy engineering
- UML PhD '00 in mechanical engineering (energy)
- co-founded Solar Electric Light Co. India in 1995.
  - As SELCO's managing director, he has pioneered access to solar electricity for more than half a million people. More than half the population does not have electricity, through lighting systems and innovative financing.
- Hande received the 2011 Magsaysay Award, widely considered Asia's equivalent of the Nobel Prize,
- One of 21 Young Leaders for India's 21st Century by Business Today
- Social Entrepreneur of the Year for 2007 by the Schwab Foundation for Social Entrepreneurship and the Nand and Jeep Khemkha Foundation.



## Jim Dandeneau '80

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- Jim Dandeneau – CEO & Owner
- UMass Lowell '80 Plastics Engineering
- Hockey Player
- Jim founded Putnam Plastics in 1984 and serves as President and CEO. Under Jim's guidance, Putnam Plastics has established itself as the leading source for complex extrusions and co-extrusions for the medical device industry
- Co-owner Connecticut National Golf Course
- Donor of over a \$ 1 million to UML scholarships

# Gururaj “Desh” Deshpande

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- Born in India
- Indian Institute of Technology
- PhD Queens University, Ontario
- Motorola
- 1990 Founded Cascade Communications (networking)
- Sold Cascade to Ascend Comm. for \$3.7 billion in 1999
- Founded Sycamore Networks in 1998 (\$18 B in 1999)
- Founded Tejas Networks and A123 Systems
- Founded MIT Deshpande Center with \$20 million donation
- The Deshpande Education Trust (DET) -the Master of Social Entrepreneurship program.
  - The Master of Social Entrepreneurship (MSE) is a two-year residential program affiliated with Karnatak University Dharwad India
- Founded Merrimac Valley Sandbox at UML
- Founded the *Deshpande Symposium for Innovation & Entrepreneurship in Higher Education* at UML.
  - <http://www.deshpandesymposium.org/>



## John Pulichino '67

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- John Pulichino-Joy Tong Building
- Industrial Management
- Polaroid
- American Tourister (President and CEO)
- Founded Innovation Luggage in 1993 –bankrupt in 2001
- Joy Tong, wife, founded Group Three International Limited (1984).  
He became CEO and she Creative Director
- 2003 licensing agreement between Group III and Wenger, maker of the 100-year-old Genuine Swiss Army Knife brand,
  - has generated a company that, since 2003, has done more than \$400 million in sales. With offices in Florida, Taiwan and Mainland China, Group III now distributes more than 60 products through Target Stores alone.
  - Recently sold firm to private equity group.
- Donated about \$5 million to UML for scholarships and building



## Robert “Rob” Manning ‘84

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- Chairman and CEO of MFS Securities
- Credited with saving a company that nearly e
- “For the rare comeback story among money managers, look to MFS Investment Management, one of the oldest names in the mutual fund business but also one of the most battered after the Internet bubble popped in 2000.” –Institutional Investor
- “CEO Manning described his approach as the opposite of the star system used by some rivals. Employees are expected to work closely together and sacrifice their egos as necessary; even fund managers with terrific performance records will face bonus cuts if they do not treat other employees respectfully, he said.”
- Rob and Donna (Nursing ‘84) are \$5 million donors to UML



## Charles Hoff '66

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- Charlie and Josephine Hoff
- Shown (right) with \$23 million donors Jack and Shelly Blais
- Hoff received a bachelor's degree in industrial management at UMass Lowell and a master's degree from Northeastern University.
- He has been a senior vice president of operations for Bausch & Lomb and held senior management positions with Wang Laboratories, Polaroid and Gillette.
- From 1983 to 1986, he was president, CEO and owner of ARL Analytical Instruments Co., which generated more than \$100 million in worldwide sales.
- He then became owner, chairman and CEO of Universal/Univis, Inc., a group of designer eyewear companies.
- He and Josephine have donated over \$5.5 million to scholarships



# Jack Blais

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- Jack and Shelly Blais
  - With Nobel Prize winner Craig Mello, Chancellor Lazare, and President Wilson
- Private Investor in Precision Optics
- Founded 15 companies,
  - many of which he has since sold.
  - optical and optical-interference technologies for military, medical and commercial applications
- In 2001 Corning paid \$2.1 Billion to acquire NetOptix from him.
- Founder and president of Blais Co. of Framingham, a holding company specializing in high-technology firms, and an active partner in Capital Risk Management Inc., a management consulting firm.
- Founded a bank in Florida
- Now does Philanthropy with low profile
  - \$23 million to UMass Medical School for the Aaron Lazare Building and Blais Chair of Molecular Medicine for Nobel Prize winner Craig Mello.
  - \$21 million to Dana Farber by buying naming rights to Patriots Training Facility and donating them to Dana Farber.



## John F. Kennedy

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- UMass Lowell, BS, 1970
- UMass Amherst, MBA, 1976
- Nova Ventures Corp.
  - President and Chief Financial Officer (retired)
- Director, Datacom Systems, Inc.
- Director, Harvard Biocience, Inc.
- Donor for Scholarships to both UMass Amherst and UMass Lowell



# Manijeh Nazari Goldberg

- UMass Lowell BS Engineering
- UML MS Computer Science
- MIT MBA
- Privo Technologies
  - MIT 100 K Award winner
    - Nano delivery of insulin by chewing gum
  - Nano Drug Delivery
- In a very tough area of raising money to commercialize.



# Joe Lane

- Founder and CEO of SafePath Medical
- BS Engineering UMass Lowell
- MBA Babson



SafePath Medical, Inc. Patent applications		
Patent application number	Title	Published
20130041388	<a href="#">APPARATUS AND METHOD FOR SUTURING TISSUE</a> - A suturing device of the present invention is in the form a compact, light-weight handheld device that includes a needle and suture assembly, a mechanism for gripping and releasing the needle/suture (a "needle transfer mechanism" or "needle shuttle mechanism"), safely capturing the needle/suture upon exit from the patient's tissue, and returning the needle to a position such that the process of delivering additional sutures to the patient can be repeated. A safety shield mechanism ensures the user is protected from the needle at all times. The device of the present invention accommodates the right or left-handed user, rests comfortably in the user's hand, allows sufficient visualization of the procedure site, and permits the user to either control penetration depth of the needle or default to a device-determined depth. The present device permits the user to utilize a wrist-rotation (pivoting) suture delivery technique.	02-14-2013

# Who ARE these people?

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Think back for a moment about the entrepreneurs that you just read about. What did you notice? What do they have in common? How are they different?

Compare this group to the image that you previously had in your mind of an entrepreneur based upon your past experiences. What kinds of differences did you see? Which of your previous impressions were changed and which remained the same or were reinforced.

Consider your own ideas of what “wealth” and “profit” means to you. Did this mean the same thing to all of these entrepreneurs? If you had to guess, based upon what little you know of these individuals, do you think that they were all motivated by the same things?

Is there any way you could describe their motivations that might fit all of them?

Did they all want to

- Make money?
- Change the world?
- Make a difference?
- Do their own thing?
- Be their own boss?
- Be a widely recognized public figure?
- Take tremendous risks?

## Diverse group with diverse motives.

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- Now you can see that Entrepreneurs are a very diverse group.
- You can see that they are all motivated for a passion for changing something in the world.
- Some appear to be financially motivated and others seem to be socially motivated. Some were both!
- Many graduates of UMass Lowell have gone on to be successful entrepreneurs in a variety of fields.
- Entrepreneurship is often a global phenomena.
- All of the entrepreneurs have done something innovative:
  - Some were driven by technology.
  - Some created different ways of doing business –different business models
  - Some approached important social problems with innovative approaches
  - All faced and overcame obstacles as they followed their passion.