

INNOVATE

/ˈɪnəˈvāt/ verb
Making Things Better

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Today's Mantra: **Making Things Better**



Anticipation Guide

Directions: Read each statement and decide if you *agree* or *disagree*, or what you would change.

1. Innovations involve creating civilization-changing inventions based on new thoughts or approaches.
2. Innovations are generally humble forms of novelty that prove to be useful, at least to some.

What Do We Mean by Innovation?

- **Create new & implemented & positive change**
- Innovation is the action required to create new ideas, processes, or products which when implemented lead to positive effective change. (Marc Chason, Motorola Labs)
- **Create new & value**
- Innovation is creating new value. Value is the key word, stressing the difference between innovation and invention. (Victor Fernandes, Natura)
- **New ideas & implementation**
- Innovation pairs ideas with action....It's not enough just to have a good idea. Only when you *act*, when you *implement*, do you truly innovate. (Tom Kelly, IDEO, *The Art of Innovation*, 2001, *The Ten Faces of Innovation*, 2005)

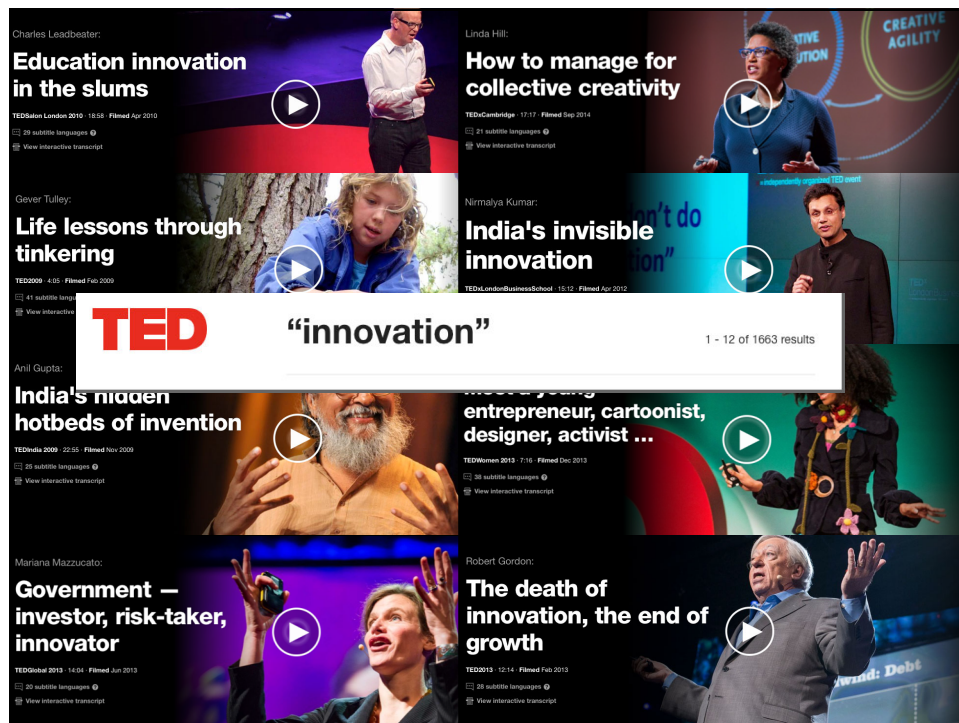
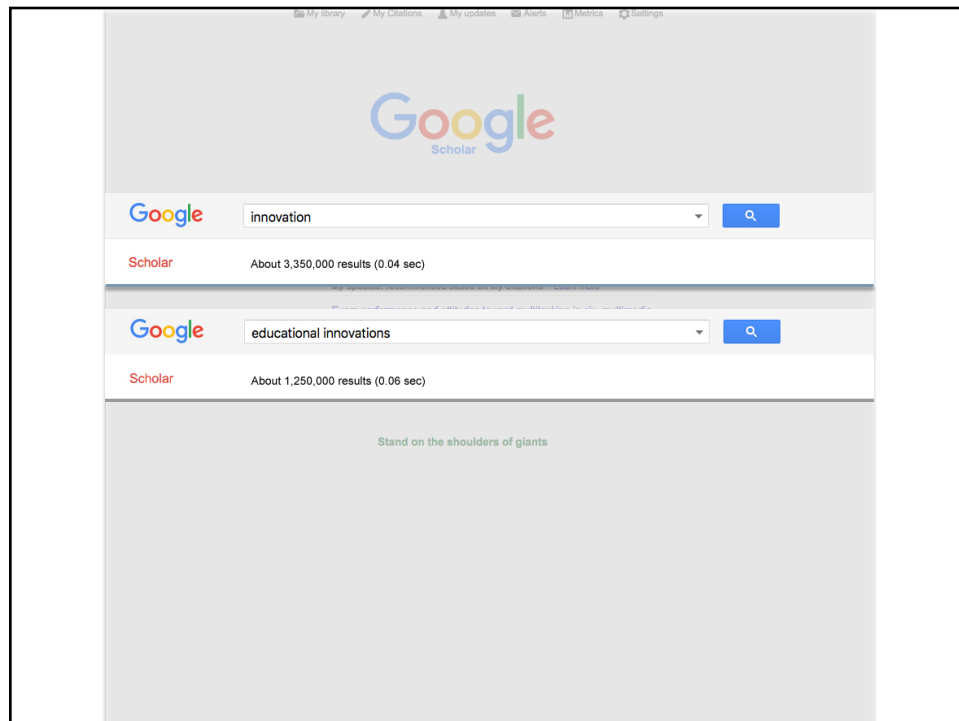
What Do We Mean by Innovation?

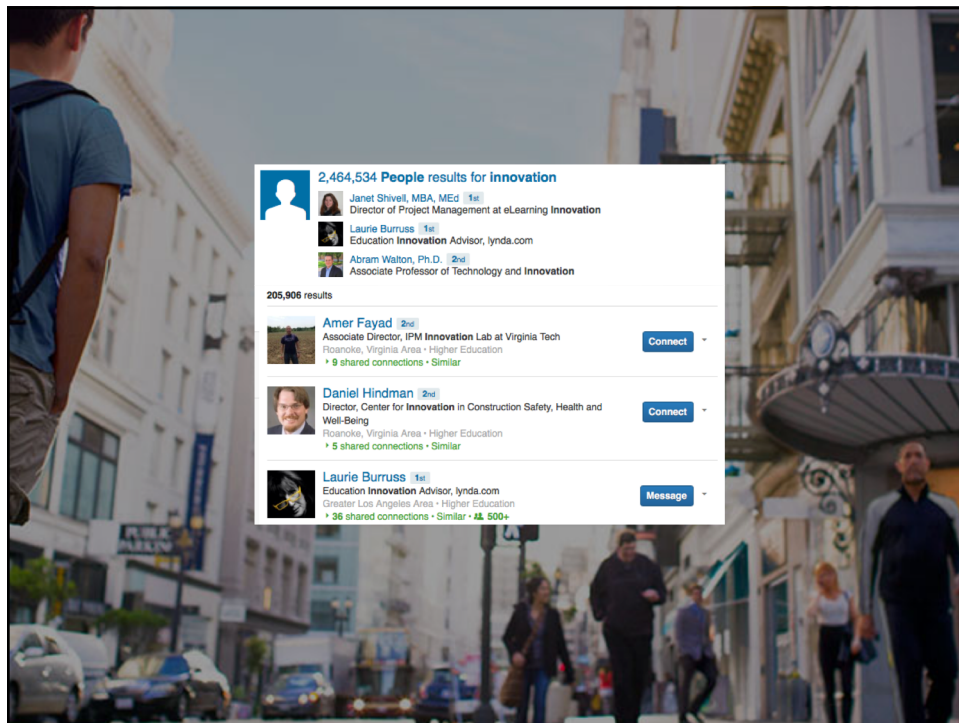
Three Attributes of Innovation

Create New → Implement → Positive Outcome

Innovation is *not* magical, mystical, or metaphysical.
Innovation is effortful.







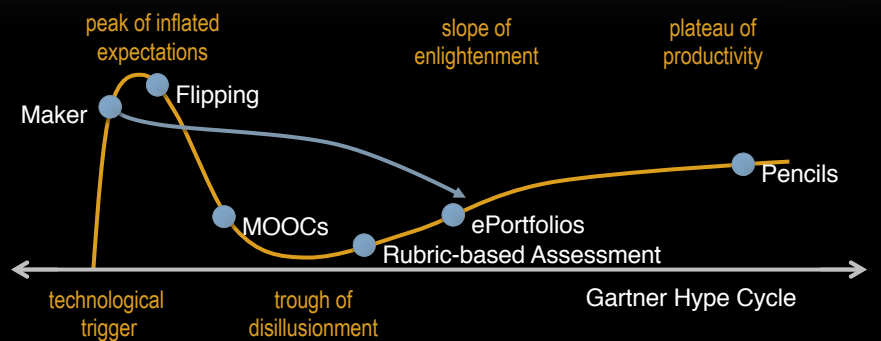
				
Thomas Edison Phonograph, Light Bulb, etc.	Shirley Jackson Physicist RPI President	Wright Brothers Aviation Pioneers	Grace Hopper First Compiler for Programming	Marie Curie Research Method Po, Ra, & U
<h1>INNOVATORS</h1>				
Programs Educational Psych Certificate in Creativity & Innov	Technologies Justin Miller One Button Studio	People Caitlin Crawford MakerSpace (Science Library)	Strategies Mitzi Vernon FORM: Line- Plane-Solid	Leadership Eddie Watson Open Educational Resources
				
UGA	PSU	UGA	VT	UGA

INNOVATION

Two Framing Concepts & One Quick Caution

1. Innovation occurs at different levels of scale – local to global.
2. Innovation is determined by the user, not the innovator.

Delusion of Innovation (Silver Bullets)



(<http://tinyurl.com/UGAhypecycle>)

Review Me

✓ Three Attributes of Innovation

- Create New → Implement → Positive Outcome

✓ Two Framing Concepts

- Innovation occurs at different levels of scale – local to global.
- Innovation is determined by the user, not the innovator.

✓ One Quick Caution

- Delusion (Hype) of Innovation

To Innovate: 8 Principles

Making Things Better

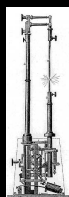


1. Solve a Problem

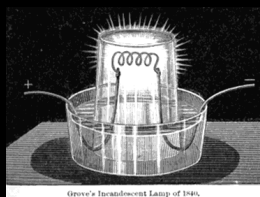
What's Your Problem?

2. Build On Others

Edison didn't "invent" the light bulb. He made it better.



Davy
1802



Grove
1840



Edison
1880s

2. Build On Others

If we're free from the burden of trying to be completely original, we can stop trying to make something out of nothing.

-- Austin Kleon, *Steal Like an Artist* (2012)

3. Work Hard, Don't Aha!

Journalists have always asked me what the crucial idea was or what the singular event was that allowed the Web to exist one day when it hadn't before. They are frustrated when I tell them there was no Eureka moment...it was a process of accretion.

-- Tim Berners-Lee, *Weaving the Web* (1999)

4. Solve It, then Solve It



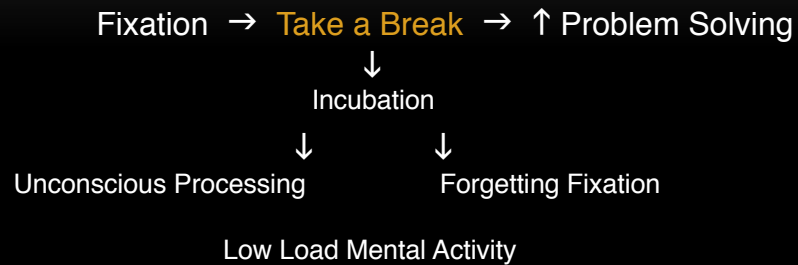
Lisa Pennington, Todd Ogle,
David Hicks, Chris Bunin, &
Patrick Touart

Augmented
Reality
&
LIDAR
Technology
Modeling



Meuse Argonne Battlefield 3D Visualization

5. I'm Stuck! Walk Away.



- Breaks work better for divergent tasks, than convergent tasks
- More preparation before a break → ↑ problem solving
- A longer break → ↑ problem solving

(Gilhooly, et al., 2014; Kohn & Smith, 2009; Segal, 2004; Sio & Ormerod, 2009, 2014)

6. Don't Wait, Do It

Do it, fix it, try it.

-- Peters & Waterman
In Search of Excellence (1982)

Don't worry, be crappy.

-- Guy Kawasaki, ex-Apple
TEDxBerkeley (2014)

Give them the third-best to go on with;
the second best comes too late,
and the best never comes

-- Robert Watson-Watt, Air Ministry, UK

Cult of the Imperfect

7. Limited Shelf Life



8. Focus on Progress

“Let me just play Devil’s Advocate for a minute...”

- ...students won’t do that.
- ...students are too disengaged for that to work.
- ...there are no resources for that.
- ...the department head won’t let you.
- ...who’s got time for that?
- ...I tried that, it didn’t work.

To innovate
is to make things better.

1. Solve a Problem
2. Build on Others
3. Work Hard, Don’t Aha!
4. I’m Stuck! Walk Away
5. Solve It, then Solve It
6. Don’t Wait, Do It
7. Limited Shelf Life
8. Focus on Progress