The importance of failure

A.Prof. Jonathon Allen, Director of Academic Program - Design,

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Innovation

Idea generation

Imagine, conceive; form ideas

3rd most prolific inventor - 1,093 patents

World’s biggest failure?

More failures recorded than anyone.

Over 3 million pages in his journals recording his experiments and design ‘failures’ and ‘successes’.

Thomas Edison
Innovation

Kia Silverbrook

4,097 US patents
9,042 International patents

Most prolific inventor in the world
Genius is 1 percent inspiration, 99 percent perspiration

(Thomas Edison)
The importance of trying...

If I find 10,000 ways something won’t work, I haven’t failed. I am not discouraged, because every wrong attempt discarded is another step forward.

(Thomas Edison)
The importance of trying...

Fail early and fail often in order to succeed sooner.
If you want to succeed, double your failure rate.

(Thomas J. Watson
President IBM)
I think there is a world market for maybe five computers.  

(Thomas J Watson)  
(President IBM)
The importance of valuing trying...

THINK™

THINK - trademarked in 1935

“this word is on the most conspicuous wall of every room in every IBM building. Each employee carries a THINK notebook in which to record inspirations”
The importance of backing yourself ...

RSA STUDENT DESIGN AWARDS

Public Fax Machine
Sponsored by Pitney Bowes

Making use of CT2 technology and the use of the ISDN system, this fax machine permits its users to send and receive faxes anywhere in the world by inserting their personal CardFax card. This received a High Commendation in the Communications and Information Technology Sector of the RSA Student Design Awards and was subsequently exhibited in London's Design Museum and at various sites in the UK on a touring exhibition.
The importance of backing yourself ...

my idea:
- pressed aluminium shell
- papier mache covering

the winner:
- pressed aluminium shell
- papier mache covering

lecturer said:
no - unproven ...
go with injection moulded ABS
What I learned:

- take risks - don’t be afraid of failing
- ask for help

I consider asking for help a sign not of weakness but of self-confidence

(Larry Bossidy)
What I learned:

• take risks - don’t be afraid of failing
• ask for help
• persevere … and prove your idea
• don’t be so timid
• comfort isn’t always a good thing
  … get out of your comfort zone
• discover your own limits
  … if you don’t try, you won’t know
• you’re responsible for yourself
  … others will often help though
• my maxim: so long as I’m learning
The importance of backing yourself ...

National / Global X25 Backbone Network Cloud

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Clive Grinyer  Jonathan Ive
The importance of believing in yourself ...

Jonathan Ive and Steve Jobs
The importance of believing in yourself ...
The importance of believing in yourself ...

From Apple
The importance of believing in yourself ...
Innovation  Tim Berners-Lee
Proposed: March 1989
1st success: 25 December 1990

WWW
Innovation  Tim Berners-Lee
Proposed: March 1989
1st success: 25 December 1990

There you go, it seemed like a good idea at the time

(Tim Berners-Lee)
The importance of believing in yourself...

To Pixar
The importance of believing in yourself ...

To Apple again ...

University of Western Sydney
Bringing knowledge to life
The importance of believing in yourself ...

Innovation

We do what others don’t

Masaru Ibuka,
Co-Founder of Sony
Nothing is more important or beneficial for individuals or organizations than screwing up.

(Tom Peters)
The importance of imagination

Ole Kirk Christiansen

lost his job during the depression ... started making wooden toys to make a living

factory burnt down in 1942 - rebuilt ...

1947 - used plastics

leg godt = Danish for play well

lego = ‘I put together’ in Latin

To nurture the child in each of us
Imagination underpins every uniquely human achievement. Imagination led us from caves to cities, from bone clubs to golf clubs, from carrion to cuisine, and from superstition to science (Ken Robinson)

http://www.youtube.com/watch?v=zDZFcDGPgL4U
The importance of letting go ... 

Flying is learning to throw yourself at the ground and miss

(Douglas Adams)
The importance of letting go ...
The importance of observation ...

Leonardo Da Vinci
The importance of learning from mistakes ...

pioneers of early flight

http://www.youtube.com/watch?v=iMhdksPFhCM
The importance of learning from mistakes ...

Innovation

Learning from mistakes

de Havilland DH 106 Comet - first commercial jet liner
Concord - first supersonic commercial jet liner
The importance of learning from mistakes ...

Tacoma Narrows Bridge

http://www.youtube.com/watch?v=j-zczjXSxnw
Failure isn’t falling down.
It’s staying down

(Steve Hogarth)
Project SAPPHO

• The responsible individuals in the successes were usually more senior and had more authority (i.e., characteristics of management).

• Successes paid more attention to marketing and publicity.

• Successful innovators had a better understanding of user needs.

• Successes performed development more efficiently (but not necessarily more quickly).

• Successes made more use of outside technology and advice (i.e., more communication).

The importance of markets ...

My play was a complete success. The audience was a failure

(Ashleigh Brilliant)
Apparent failure may hold in its rough shell the germs of a success that will blossom in time, and bear fruit throughout eternity

(Frances Watkins Harper)
Innovation

1968: Chemist, Dr Spencer Silver, develops a low tack adhesive. It took five years of promoting the idea at 3M, before a colleague, Art Fry, thought of using the adhesive to keep his bookmark in his hymnbook.

1977: 3M launched the product named “Press ‘n Peel”
- Disappointing results

1978: 3M gave free samples to people
- 95% said they would buy the product

Innovation

To be the most innovative enterprise in the world
Failure is relative. It’s relative to the perspective of the judge. It’s relative to time. It’s relative to the moment in time - a moment in the process, in the project, in the life - that is arbitrarily frozen and extracted and weighed in the scale of whim.

(David Barringer)

Every exit is an entry somewhere else

(Tom Stoppard)
Failure is the condiment that gives success its flavor

(Truman Capote)
Thank you