

## Pattern Recognition

# blink

*By the author of THE TIPPING POINT*



The Power of Thinking  
Without Thinking

Malcolm Gladwell

UNABRIDGED ON 7 CDS  
READ BY THE AUTHOR

In Blink, Malcolm Gladwell tells the story of a Cleveland fire lieutenant. The firefighter led his men into a burning house. They turned on the hose and started spraying the fire with water.



Suddenly, the fireman thought there was something wrong and ordered his men out. The men vacated the house just in time before the floor they had been standing on collapsed. When asked about how he knew to get out, the fireman could not articulate a rational reason. Something just felt wrong. The firefighter relied upon his intuition. If he had waited to make a decision by analyzing the facts, both the lieutenant and his men would have probably died. Contrary to what many people believe, intuition is not some sort of magical sixth sense. It is an emotion that arises from pattern recognition.



The firefighter in Gladwell's story had many years of experience. The expertise, gained from his experience, made his subconscious come to expect certain patterns. Therefore, when he and his men doused water on the fire, he subconsciously had expected the fire to react in a certain way. After the fire did not act in the manner his mind had predicted, his brain generated a negative emotional response. While the fire lieutenant could not explain why he had this "gut" feeling, he was smart enough to act on it and order his men out.



Chess grandmasters usually know their next move within a few seconds by using their intuition developed through training exercises and reviewing prior matches. They rely on pattern recognition.



Intuition is a feeling that is generated from pattern recognition. When we build expertise in a field, we are not just accumulating information. Experts develop mental maps so that certain patterns come to be expected. Their expertise becomes so ingrained that they may not understand how or why things seem to make sense. They just do.



We've seen patterns.

Pattern recognition is  
very important in  
evaluating humans and  
businesses.

Pattern recognition isn't one hundred percent accurate and none of the patterns exactly repeat themselves, but there are certain things in business and securities markets that we've seen over and over that frequently come to a bad end but frequently look extremely good in the short run.

During this workshop, we will encounter a lot of patterns for evaluating businesses and also for evaluating humans. Some of these patterns will be good ones, and some bad. The idea is to look for both types and seek one and avoid the other.

This is not going to end well

Highly Capital Intensive Business

+

High Operating Leverage

+

High Financial Leverage

+

Extreme Competition

+

Perishable Commodity

Airline

This is not going to end well

Highly Capital Intensive Business

+

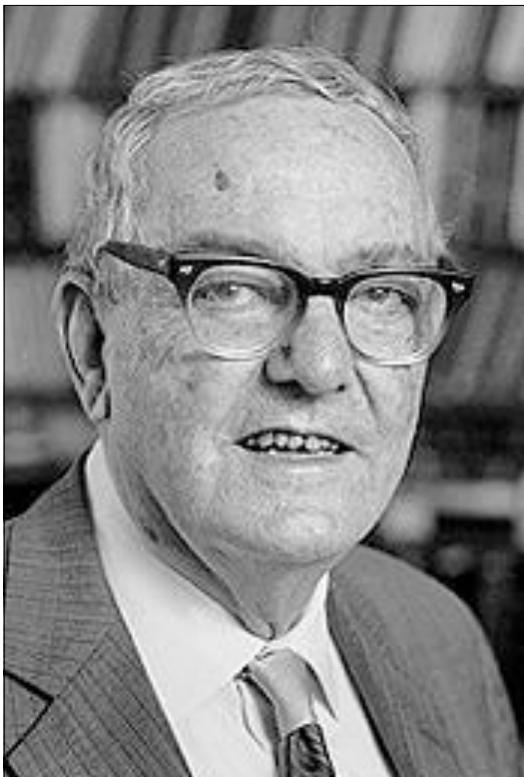
High Rate of Obsolescence

+

Extreme Competition Causing Price to Fall Rapidly Over a Short Time

Telecom, Computer hardware

# How Do Experts in Any Field Get Good at Pattern Recognition?



“The situation has provided a cue; this cue has given the expert access to information stored in memory, and the information provides the answer. Intuition is nothing more and nothing less than recognition.” — Herb Simon

One can train a man so that he has at his disposal a list or repertoire of the possible actions that could be taken under the circumstances; . . . a person who is new at the game does not have immediately at his disposal a set of possible actions to consider, but has to construct them on the spot, . . . a time-consuming and difficult mental task. . . . The decision maker of experience has at his disposal a checklist of things to watch out for before finally accepting a decision.

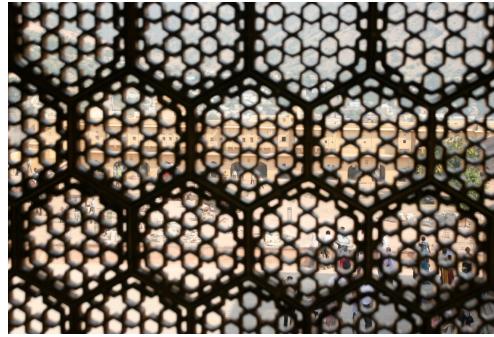


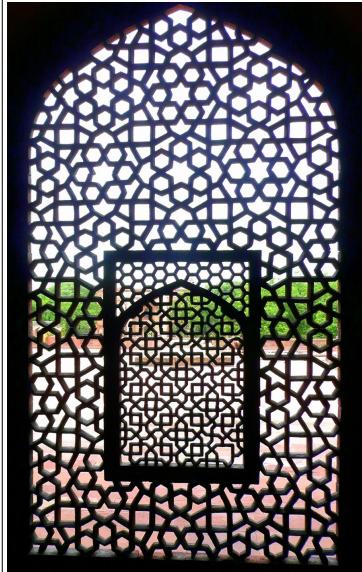
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A large part of the difference between the experienced decision maker and the novice in these situations is not any particular intangible like “judgment” or “intuition”. If one could open the lid, so to speak, and see what was in the head of the experienced decision-maker, one would find that he had. . . at his disposal repertoires of possible actions; that he had. . . checklists of things to think about before he acted; and that he has mechanisms in his mind to evoke these, and bring these to his conscious attention when the situations for decisions arose. Most of what we do is to get people ready to act in situations of encounter consists of drilling in these lists into them sufficiently deeply so that they will be evoked quickly at the time of the decision. – Herb Simon



“You’ve got to have  
models in your head.  
And you’ve got to  
array your  
experience – both  
vicarious and direct  
– on this latticework  
of models...





“Students who just try to remember and pound back what is remembered, well, they fail in school and fail in life. You’ve got to hang experience on a latticework of models in your head.”

## How Elon Musk Learns Faster And Better Than Everyone Else



How is it even possible that Elon Musk could build four multibillion companies by his mid-40s—in four separate fields (software, energy, transportation, and aerospace)?

<https://medium.com/the-mission/how-elon-musk-learns-faster-and-better-than-everyone-else-104806b23df8#.gxezy3e4j>

### An Expert Generalist

“Someone who has the ability and curiosity to master and collect expertise in many different disciplines, industries, skills, capabilities, countries, and topics., etc. He or she can then, without necessarily even realizing it, but often by design:

Draw on that palette of diverse knowledge to recognize patterns and connect the dots across multiple areas; and

Drill deep to focus and perfect the thinking.”

Multidisciplinary

## Expert Generalist

Expert-generalists study widely in many different fields, understand deeper principles that connect those fields, and then apply the principles to their core specialty.

Multidisciplinary

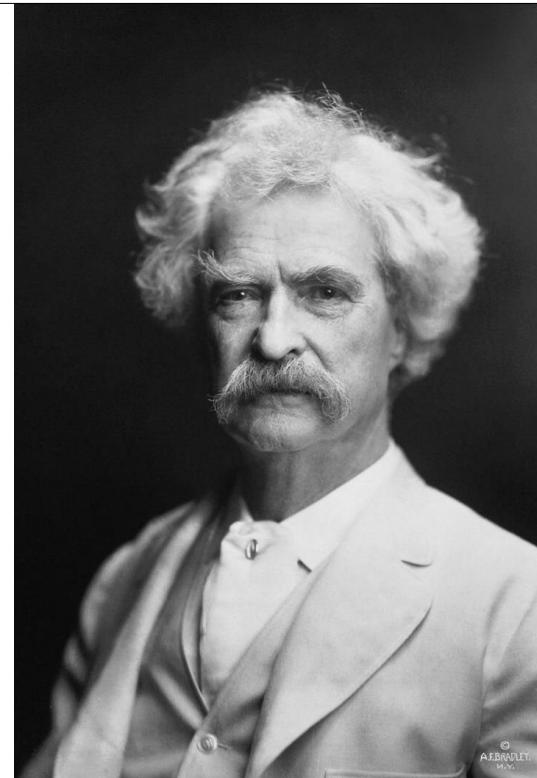
### **Bottom line: It's not magic. It's just the right learning process**

Now, we can begin to understand how Musk has become a world-class expert-generalist:

- He spent many years reading 60 times as much as an avid reader.
- He read widely across different disciplines.
- He constantly applied what he learned by deconstructing ideas into their fundamental principles and reconstructing them in new ways.

“The man who does  
not read great  
books has no  
particular advantage  
over a man who  
cannot read them.”

— Mark Twain



"Brilliant and utterly convincing." —Malcolm Gladwell

# THE *Opposable* MIND

How Successful Leaders Win Through  
Integrative Thinking

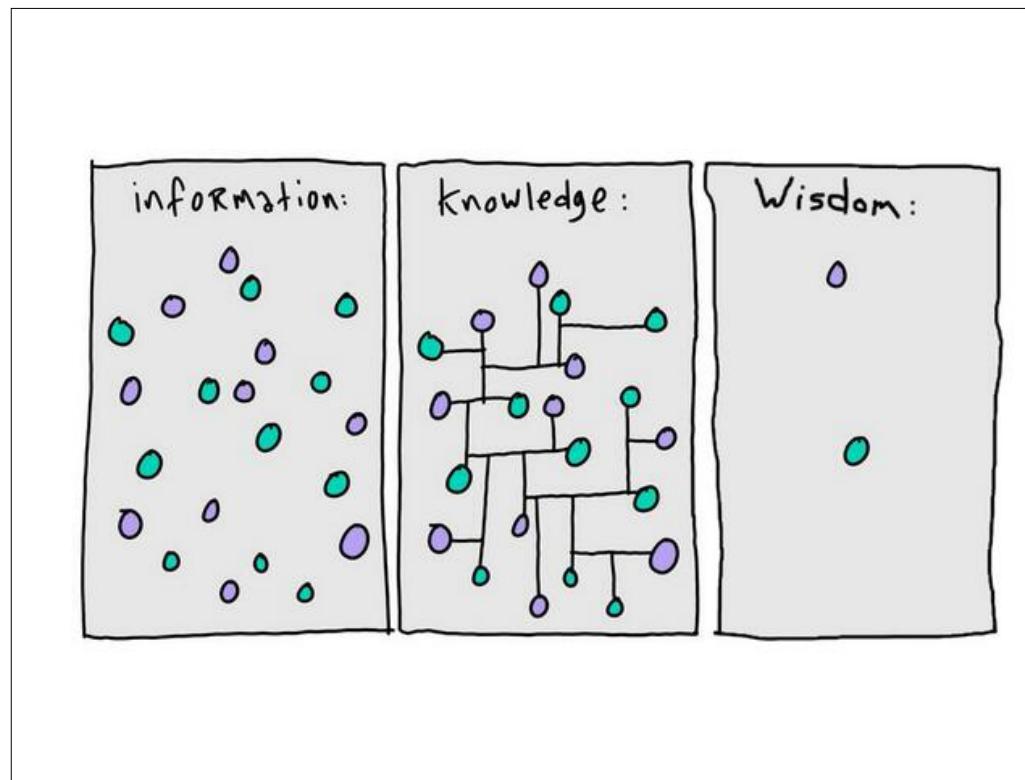


ROGER MARTIN

HARVARD BUSINESS SCHOOL PRESS

## Experiences Can Deepen Mastery

Mastery requires repeated experiences in a particular domain. Because masters in their domain have seen particular phenomena before and know what they mean, they don't have to interpret every sensation or input from scratch as a novice would.

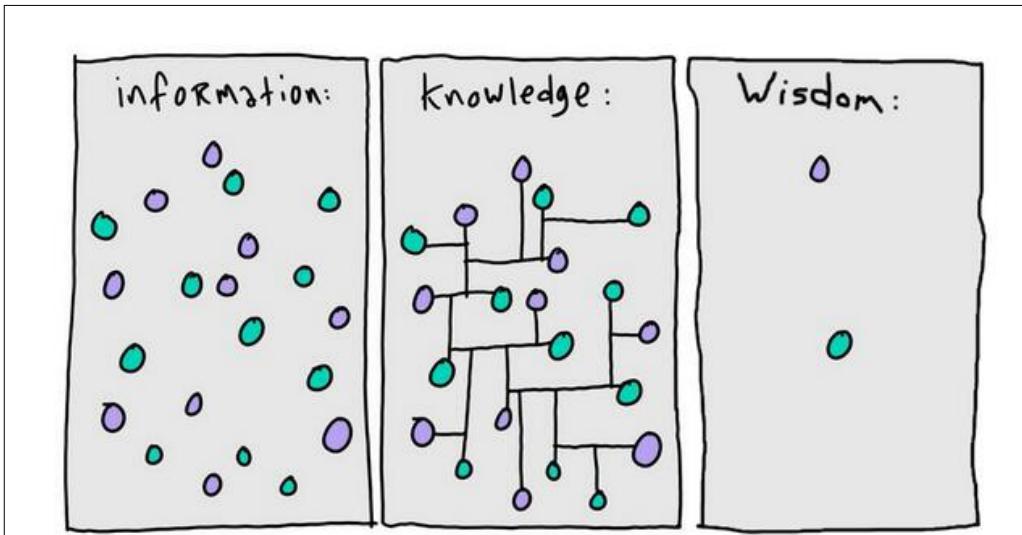


In the essentially infinite morass of data, they can pull out the few salient data points that make a difference and mentally map their causal relationships. And because they have done it many times before, they know from experience how to structure the problem in order to create a resolution. A masterful doctor may be able to diagnose appendicitis after a brief examination of a patient, while a newly minted intern may have to work through dozens of potential options before recognizing what is causing the patient's abdominal pain. The intern might recognize the vague categorical level of "abdominal pain," but the master physician—with her sensitivity to small differences that only experience can teach—recognizes the precise category of "appendicitis-induced pain." From their vast databank of experiences, masters develop pattern-recognition skills that open up shortcuts to solutions.

From *The Opposable Mind*

### Learning Transfer

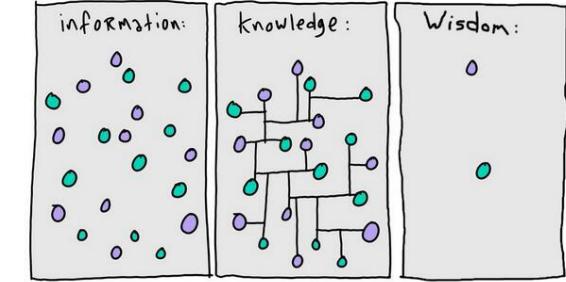
Learning transfer is taking what we learn in one context and applying it to another. It can be taking a kernel of what we learn in school or in a book and applying it to the “real world.” It can also be taking what we learn in one industry and applying it to another.



Great thinkers are able to quickly assess and see the essence of a situation – the critical things that really matter and what can be ignored.” — Peter Bevelin

One reason to why they can do that is because they have a large repertoire of stored personal and vicarious experiences and concepts in their heads.

They are masters at pattern recognition and connection.



Nassim Nicholas Taleb  
Intelligence

"They think that intelligence is about noticing things are relevant (detecting patterns): *in a complex world*, intelligence consists in *ignoring things* that are irrelevant (*avoiding false patterns*)"

Nassim Nicholas Taleb

How do we decide what are the critical things that really matter and what can be ignored?

This is called the Noise/Signal Problem.

# BOOK of VALUE

*The FINE ART of INVESTING WISELY*

ANURAG SHARMA

 Columbia Business School  
Publishing

Novel ideas emerge from consciously engaging in mental exercises such as the following: seeing sameness and distinctions between concepts, seeing relationships among concepts, noticing similarities or analogies between pattern fragments, shifting boundaries by grouping and ungrouping concepts, and generalizing from facts...

Idea generation, furthermore, is not simply a dry analytical skill but invokes a sense of aesthetics, an artistic flair for making connections and generalizations, for fluidly moving between the abstract and the concrete, between theory and data, in ways that allow fresh insights into the seemingly mundane.

# BOOK of VALUE

*The FINE ART of INVESTING WISELY*

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Publishing

Creatively developing fresh insights about investment prospects requires mentally exploring patterns, combining them with other patterns or disaggregating them, and conceptually juggling ideas. Indispensable in all this is having a sixth sense about which pathways are most promising and most likely to be productive for the task at hand.

# BOOK of VALUE

*The FINE ART of INVESTING WISELY*

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Analogies are central to perceiving patterns and new ideas. They leverage perceptual processes to mentally scan objects of interest by, for instance, requiring the mind to slip from object sameness to abstract resemblances.

For instance, 4 and 6 are different digits but also similar in that they both are single digits divisible by 2; they are the same in that they both belong to the same class of (even) numbers. This ability of the mind to shift or “slip” between different, similar, and the same, allows generalizations and pattern sensitivity. Such slippage can be a small skip, as in the above example, or a deep shift, as when you see abstract resemblance between two very different situations such as, say, structural similarities between two companies in different industries. Actively slipping from one situation to another can reveal interesting possibilities that would otherwise not be visible.

FMIG

Dollar Shave Club – converting products into services... – Business Model innovation – find tesla article.

Toll Bridge – Malls, Amazon, Google Network effects, Hospitals.

Serendipity – Luck by Chance

uU Richard Zeckhauser– Sholay – Ajay Piramal, Ajit Isaac, Prem Watsa, Intelligent Fanatics – everything is sidecar...



Hindustan Unilever  
Limited



What's Common Between These Businesses?

They are all FMCG Businesses

FMCG  
WE HAVE TO KEEP BUYING IT

“I would rather invest in a company that makes drugs, soft drinks, razor blades, or cigarettes than in a company that makes toys. In the toy industry somebody can make a wonderful doll that every child has to have, but every child gets only one each. Eight months later that product is taken off the shelves to make room for the newest doll children have to have – manufactured by somebody else. Why take chances on fickle purchases when there is so much steady business around?” — Peter Lynch

## What's The Pattern That Plays Out in These Businesses?

### B2C

#### Product Attributes:

- Repeat Purchases
- Large Volume
- Low cost in Relation to Disposable Income  
Creating high Switching Costs.
- Advertising Creating High Switching Costs.

#### Dominant players :

- Are highly profitable (high ROEs)
- Have strong balance sheets
- Have been huge value creators

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Private and Confidential  
Not for Circulation

ValueQuest Capital  
Fast Moving Industrial Goods



April 2014

## Examples of Fast Moving Industrial Goods

GEARS
BEARINGS
GRINDING MEDIA
WELDING CONSUMABLES
REFRACTORIES



We named it FMIG  
“Fast Moving  
Industrial Goods”

### FMCG and FMIG Businesses: Similarities and Differences

- You have to keep buying it (Ketchup in FMCG vs. welding consumables in FMIG)
- Low cost in relation to disposable income in FMCG is analogous to low cost in relation to end product price for FMIGs
- In FMCG the low price in relation to disposable income reinforces brand loyalty (for example Gillette razor blades and Wrigley's chewing gum. In FMIG this loyalty is derived from high switching costs, i.e., low cost of ownership, high cost of failure, as FMIG are mission critical (cheaper and inferior ball bearings in automobiles can lead to accidents)
- In FMCG dominant players expand their moats through investment in branding and distribution. In FMIG, this is accomplished through investments in research and development.
- Dominant players in both FMCG and FMIG deliver high ROEs and have strong balance sheets
  - The primary factor that drives FMCG demand is consumer spending, in FMIG the primary driver is industrial growth
    - This makes FMIG businesses somewhat more cyclical than FMCG businesses

## FMIG Space Is A Great Place To Look For Moats

We prepared the list of 21 businesses which are into manufacturing of "Fast Moving Industrial Goods"

3M India Ltd.	Ador Fontech Ltd.	Elantas Beck India Ltd.	FAG Bearings India Ltd.	IFGL Refractories Ltd.	NRB Bearings Ltd.	SKF India Ltd.
ABC Bearings Ltd.	AIA Engineering Ltd.	Esab India Ltd.	Foseco India Ltd.	Kennametal India Ltd.	Vesuvius India Ltd.	Shanthi Gears Ltd.
Ador Welding Ltd.	Carborundum Universal Ltd.	Elecon Engg. Company Ltd.	Grindwell Norton Ltd.	Ingersoll-Rand (India) Ltd.	Orient Refractories Ltd.	Styrolution ABS (India) Ltd.

Stock Return Performance		Last 5 Years	Last 10 Years
FMIG Aggregate Return		248%	605%
Sensex		127%	295%
Aggregate Financial Performance		Last 5 Years	Last 10 Years
Revenue Growth (CAGR)		13%	18%
Earnings Growth (CAGR)		-1%	18%
		FY 2013	FY 2008
EBITDA Margin (%)		14.5	18.9
Pretax Margin (%)		11.2	18.7
ROE (%)		14.9	32.2
Interest Cover (x)		19.3	22.9
Market Capitalization		2,88,715	76,624

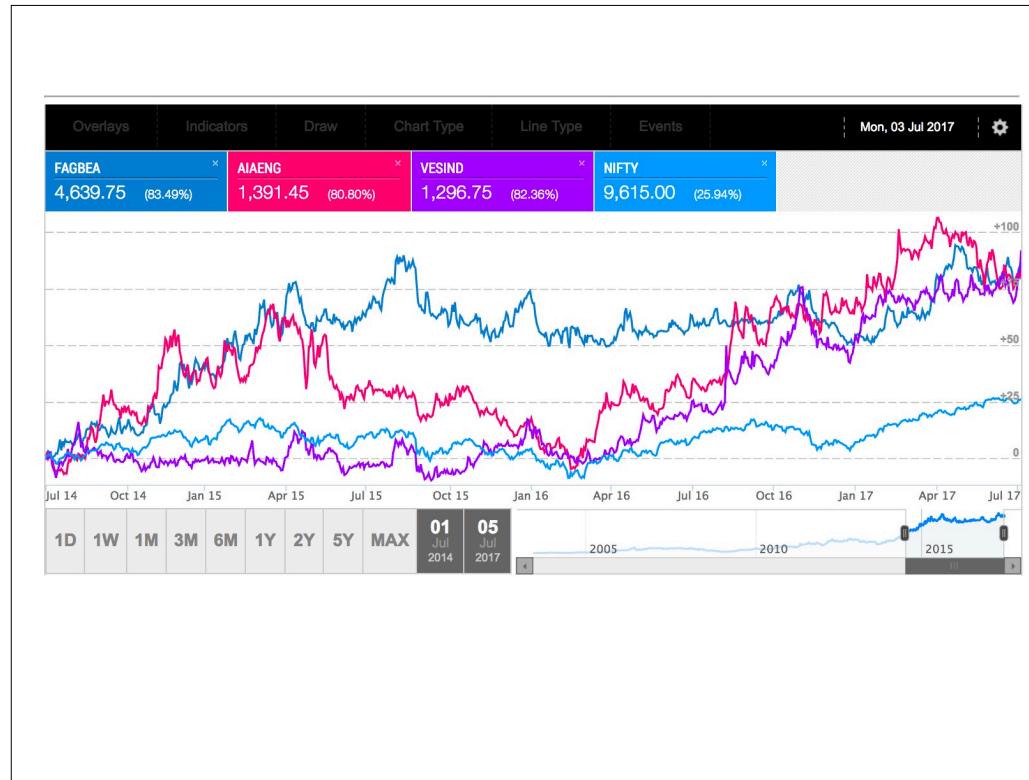
- ✓ If we had invested in them 10 years ago or even 5 years ago, we would have beaten the market
- ✓ These are good businesses, they are scalable, given the size of manufacturing activity

## FMIG Moats We are Focusing On

■ We selected group of businesses from the list of 21 businesses:

3M India Ltd.	Ador Fontech Ltd.	Elantas Beck India Ltd.	<b>FAG Bearings India Ltd.</b>	IFGL Refractories Ltd.	NRB Bearings Ltd.	SKF India Ltd.
ABC Bearings Ltd.	<b>AIA Engineering Ltd.</b>	Esab India Ltd.	Foseco India Ltd.	Kennametal India Ltd.	<b>Vesuvius India Ltd.</b>	Shanhi Gears Ltd.
Ador Welding Ltd.	Carborundum Universal Ltd.	Elecon Engg. Company Ltd.	Grindwell Norton Ltd.	Ingersoll-Rand (India) Ltd.	Orient Refractories Ltd.	Styrolution ABS (India) Ltd.

S.No.	Stock	Business Description
1		World's second largest player in high chrome grinding media
2		Indian operations of the world's leading ball bearing company (Schaeffler Group)
3		Indian operations of the world's leading refractories' player for steel industry



## What's The Pattern That Plays Out in These Businesses?

B2B

Product Attributes:

- Repeat Purchases
- Large Volume
- Low Cost in Relation to Cost of End Product  
Creating High Switching Costs
- Reputational Risk Creating High Switching Costs
- Advertising in FMCG is Analogous to R&D in FMIG.

Dominant players :

- Are highly profitable (high ROEs)
- Have strong balance sheets
- Have been huge value creators

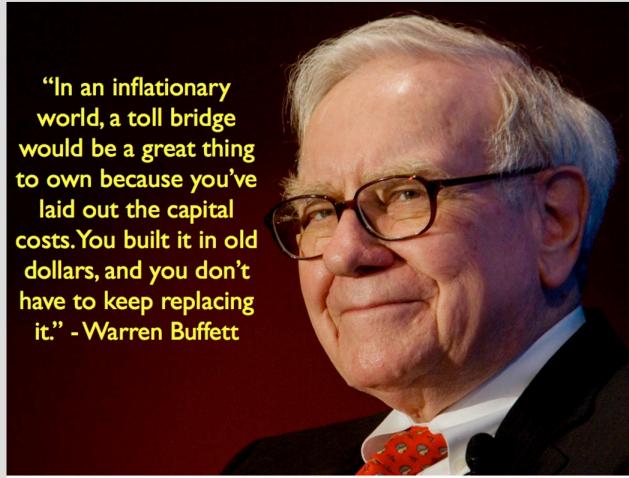
“Most of us learn and memorise a specific concept or method etc. and learn about its application in one situation. But when the circumstances change we don’t know what to do and we don’t see that the concept may have a wider application and can be used in many situations.” — Peter Bevelin

OCT 21 2012  
77 COMMENTS

ABSTRACT IDEAS IN FINANCE,  
SECURITY & BUSINESS  
ANALYSIS

EDIT

## I DON'T WANT TO BE A TOLL BRIDGE, I WANT TO BE ITS MEANING



**"In an inflationary world, a toll bridge would be a great thing to own because you've laid out the capital costs. You built it in old dollars, and you don't have to keep replacing it."** - Warren Buffett

### The Economics of a Toll Bridge

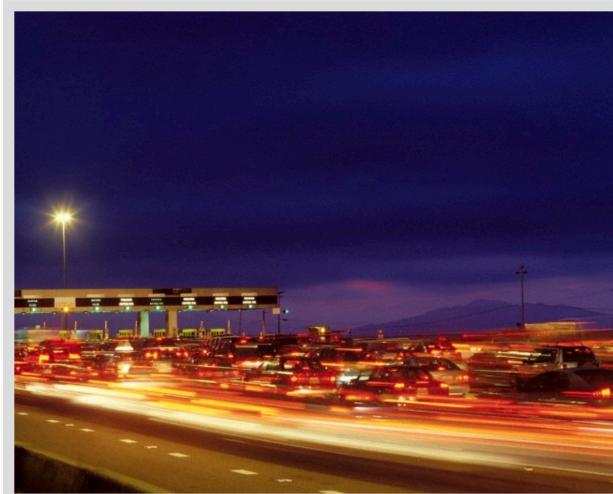
Buffett tells us that the fundamental economics of a toll bridge are excellent. However, this post is *not* about a toll bridge. Rather, it's about the "functional equivalents" of a toll bridge.

Now, apart from the reasons Buffett talked about, what are the other reasons that make a toll bridge a very good business model?

- A. There is usually no alternative. People who have to move from A to B, have to use it. The owner of the toll bridge won't let you through unless you *pay the toll*. That's the key phrase: *pay the toll*. Keep this phrase in mind because we will need it later.
- B. Even if there is an alternative, people still prefer to use the toll bridge. That's because *in the mind of the user*, it does not make sense to use the alternative. Now there can be all kinds of reasons why people prefer to use a toll bridge instead of an alternative. For example, the alternative may be too far, too crowded, too risky (crime-ridden) or too expensive. There may be other reasons as well but the key thing to remember is that the preference is *in the mind of the user*. Keep this phrase in mind too because we will need it later.

#### **What really happens on a toll bridge?**

Now let's think about what *really* happens on a toll bridge. If you stand at a vantage point high above the bridge, what do you see? Well, you see *movement*. You see *traffic*. And you see the toll barrier, i.e. the *gateway*. There has to be a gateway owned by someone and used by someone else to pass through. Vehicles passing through have to pay a toll. The toll keeper collects the money and opens the gate. Most of his effort came in making the toll bridge. Now, all he does is open the gate and collect the toll.



Now let's see what we have. We have several key words or phrases to remember:

- A. Pay the Toll
- B. In the Mind of the User
- C. Movement
- D. Traffic
- E. Gateway

These terms constitute a “bridge” which will connect our physical toll bridge to the metaphorical one.

#### **Toll Bridge is a metaphor**

Do these terms remind you of something other than a physical toll bridge? Think about it for a while. What other business models require customers to pay the toll to use something that has no alternative in the mind of the users — something that involves movement of traffic and where the owner of the metaphorical toll bridge is the owner of a gateway?



Google

eBay



NSE

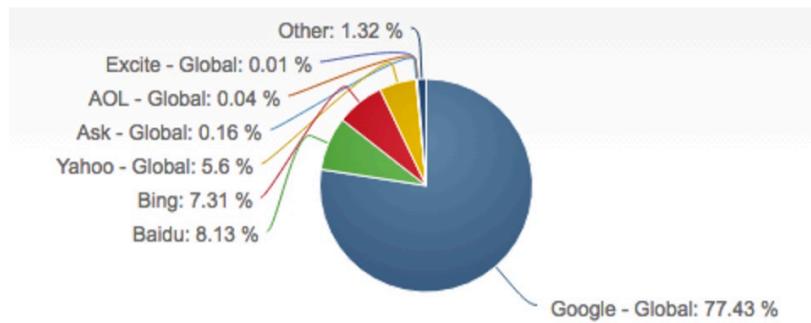
National Stock Exchange of India Limited

CRISIL

An S&P Global Company

Network economics is a product of the network effect,  
whereby an increase in the value of a good or service increases  
as the number of buyers or subscribers multiplies.

And what's a common tendency in network effects?



Winner Takes All

# NSE's market share improves in first half of FY17

It has virtual monopoly in high volume derivatives segment, while BSE had around 14 per cent market share in cash segment in 1HFY17

BS Reporter | Mumbai  
October 3, 2016 Last Updated at 22:35 IST

The National [Stock Exchange](#) of India (NSE), the country's largest stock exchange, has reported further improvement in market [share](#) in the first half of 2016-17 (H1FY17). The bourse's market [share](#) in the derivatives segment increased to 99 per cent, compared to 93 per cent at the end of FY16. [NSE](#) also consolidated its lead in the cash segment, registering a market [share](#) of 86 per cent, up from 85 per cent in 2015-16.

Winner Takes All

Talk about Safir. he is a lawyer, he is a poet, he is a comedian, he is a punner.

Part of the reason why he is such a good investor is that he has this sense of humour and he has this ability of wordplay – of puns.

THOUGHT EXPERIMENTS



<https://www.youtube.com/watch?v=ZUG9qYTJMsl>

P&G model – high spend on R&D, Branding and Advertising, Distribution and Retail

High Gross Margins – provide dollars for persuading customers that they really need to spend \$20 a month for the latest blade. And also to incentivize the trade channel.

Dollar Shave Club model

LOW Gross margin

Pretty good product. – Blades made in Germany

Excellent value proposition to the customer – not making a fool of them. Subscription model.

You tube advertising.

Direct – no intermediaries. Delivered to their home.

20% market share.

Unilever buys the company for USD1 Billion.

FUNCTIONAL EQUIVALENTS?

### Pattern Recognition or “Functional Equivalents”

Keith Holyoak, a UCLA professor of psychology and one of the world’s leading thinkers on analogical reasoning, recommends people ask themselves the following two questions in order to hone their skills:

“What does this remind me of?” and

“Why does it remind me of it?”

By constantly looking at objects in your environment and material you read and asking yourself these two questions, you build the muscles in your brain that help you make connections across traditional boundaries.

## Pattern Recognition

Learn from history and when you later see something ask, “Have I seen this before or has this happened before and what happened then? What normally happens in similar situations? Why should this be any different? — from “All I Want to Know is Where I am Going to Die” by Peter Bevelin

### Learning Transfer

Learning transfer is taking what we learn in one context and applying it to another. It can be taking a kernel of what we learn in school or in a book and applying it to the “real world.” It can also be taking what we learn in one industry and applying it to another.

a  
neuroscientist  
reveals  
how to  
think  
differently

# iconoclast

i·con·o·clast \i-kä-nə-kläst\ n  
A person who does something  
that others say can't be done

Gregory Berns

HARVARD BUSINESS PRESS

The issue of how the brain creates perceptions from raw visual inputs is of critical importance to being an iconoclast. The iconoclast doesn't literally see things differently than other people. More precisely, he perceives things differently.

a  
neuroscientist  
reveals  
how to  
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differently

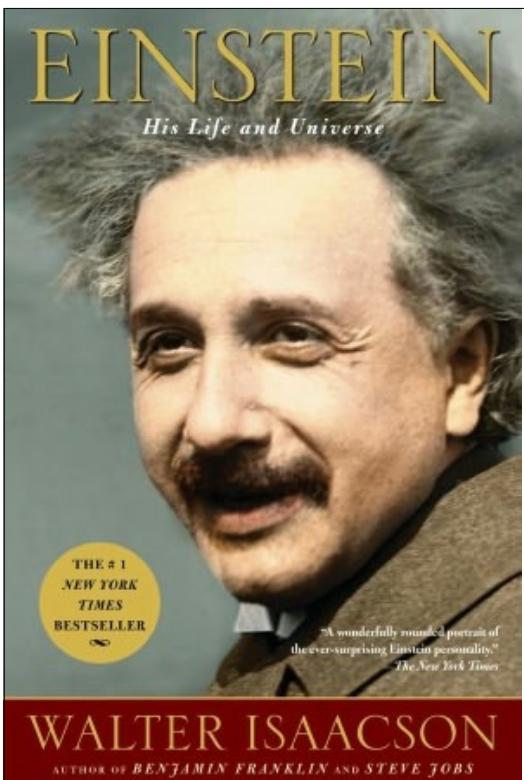
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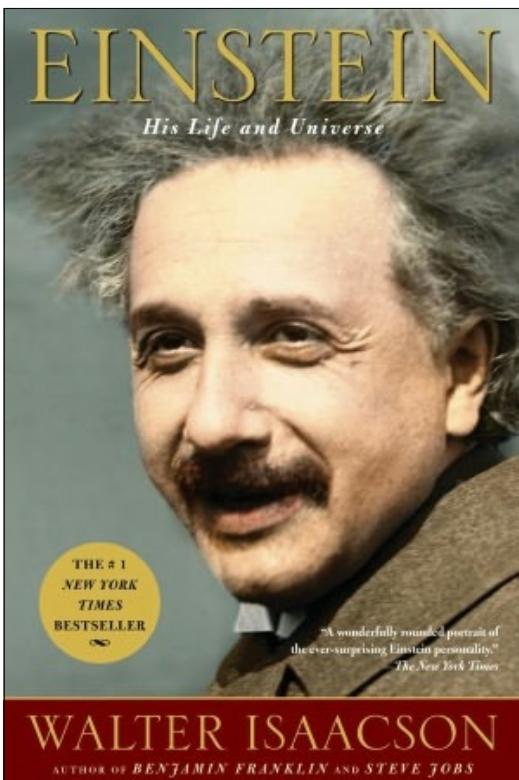
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Over and over again,  
iconoclasts like Lauterbur  
and Chihuly point to the  
visual nature of their insights.  
And so visual perception is  
where the hunt for the  
iconoclastic brain begins.



It was a perfect school for Einstein. The teaching was based on the philosophy of a Swiss educational reformer of the early nineteenth century, Johann Heinrich Pestalozzi, who believed in encouraging students to visualize images...

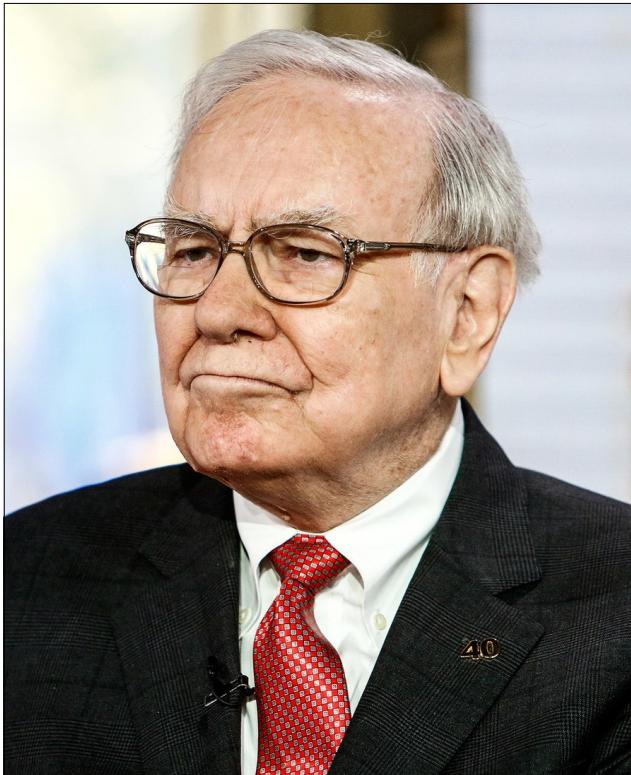
Pestalozzi preached, by using a series of steps that began with hands-on observations and then proceeded to intuitions, conceptual thinking, and visual imagery.



“Visual understanding is the essential and only true means of teaching how to judge things correctly,” Pestalozzi wrote, and “the learning of numbers and language must be definitely subordinated.”

Not surprisingly, it was at this school that Einstein first engaged in the visualized thought experiment that would help make him the greatest scientific genius of his time: he tried to picture what it would be like to ride alongside a light beam.

This type of visualized thought experiments—Gedankenexperiment—became a hallmark of Einstein’s career. Over the years, he would picture in his mind such things as lightning strikes and moving trains, accelerating elevators and falling painters, two-dimensional blind beetles crawling on curved branches, as well as a variety of contraptions designed to pinpoint, at least in theory, the location and velocity of speeding electrons.



**Buffett is incredibly visual. He is also a master in the usage of analogies and metaphors in making sense of what he is seeing and also in communicating it to others.**

When he talks about stock splits he uses the metaphor of Pizza

When he talks about inflation, he uses an example of a burger.

When he talks about highly leveraged balance sheets and what can go wrong, he uses the example of a car with a dagger mounted on the steering wheel.

When he talks about crowd psychology he likens it to a group of lemmings jumping over a cliff

When he talks about competitive advantage, he uses the metaphor of a moat around a castle

When he talks about risk, he uses the example of a metaphorical gun with a million chambers in it with one chamber full and the rest empty.

Elephant gun.

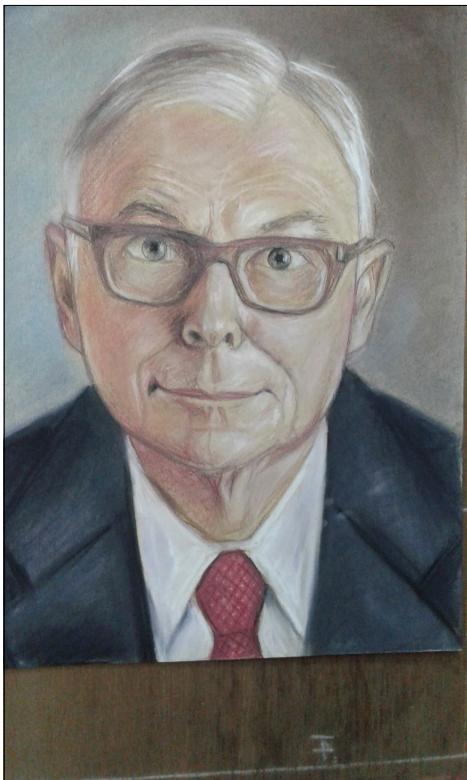
He uses metaphors from sport. For example, when he talks about being patient and saying no to almost everything, he uses an analogy from baseball.

When he talks about the need to focus on future and not current fundamentals he uses the analogy from ice hockey by suggesting that one should go where the puck is going and not where it is.

When it comes to the need to keep things simple, he uses the analogy of olympic diving and says that degree of difficulty doesn't count. He wants to describe the workings of multiplicative rule in probability he simply says a chain cannot be stronger than its weakest link.

When he talks about limits to geometric growth, he uses the analogy of bacteria multiplying rapidly and its consequences.

When he talks about the evolution of a business he said it should be viewed as an evolving movie and not a still photograph



Munger too loves to  
think and explain  
ideas in terms of  
analogies and  
metaphors

Canary in coalmine  
Undertaker in a plague  
Boiling frog.  
Peeing on an electric fence.  
Psychological denial – ostrich  
Mark Twain's cat

## Some Thoughts on Visual Thinking

One of my favorite examples for helping students think visually is to make them imagine the value of a business as if it were a pizza, divided between equity and debt.

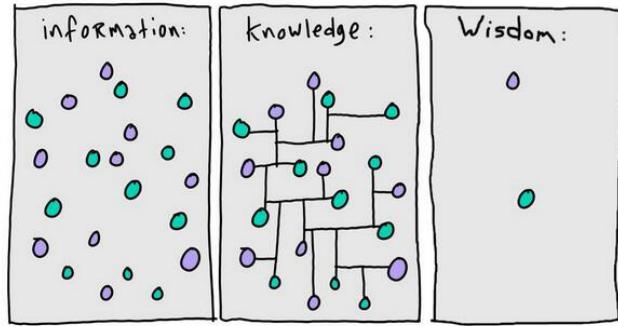


Then, if nothing changes but debt is paid down, then equity must expand. Of course, that's just another way of expressing Modigliani Miller [proposition](#) on capital structure (without the equations of course).

Or, think of the value of a debt-free company as a pizza where each slice is a share. And the pizza *grows* in size because the business is growing and with someone like [Henry Singleton](#) running the company, over time, if the market undervalues the company, and there are significant buybacks, the number of *slices* in the pizza shrinks. So we have a situation where the pizza is growing but the number of slices are shrinking. And so one can visualise what will happen to size per slice over the next few years if this process continues.

It's interesting to VISUALIZE how certain financial ratios (and therefore, valuation multiples) will change because of changes in a business. For example — I am listing only a few as there are so many more:

1. A gradual transformation of a B2B business with much lower profit margins into a B2C business with much higher margins if it becomes successful.
2. How operating cash flows in some businesses are far in excess of reported earnings thanks to over-conservative depreciation policy and how, over time, the reported earnings will catch up with operating cash flows simply because of passage of time.
3. How the true earning power of some growing businesses can become visible just by mentally stopping the growth capex. Charlie Munger once said: "*You should seek businesses that just drown in money if they just pause for breath.*" Well, then why not mentally make them pause some businesses to catch their breath and visualize the results?
4. How in a highly leveraged firm, debt reduction from sustainable operating cash flow will increase value over time. So might debt reduction from sale of some operating assets under some circumstances.
5. How a firm's true earning power is *camouflaged* because the earnings of a great business are subsidising the losses of some miserable ones and there is a credible plan in place to stop the haemorrhage. Or maybe the *camouflage* is there because some businesses which have great potential are still in growth phase and have not yet started recovering their costs which were incurred for a certain scale yet to be achieved by them.
6. How an asset-heavy business that's into manufacturing transforms itself into an asset light business by outsourcing production or generally speaking, how tradeoffs between margins and capital turns can change the value of a firm over time.
7. How the fundamentals of a business deteriorate over time thanks to increase in the intensity of competition in its industry (how the P&L will change, and how the balance sheet quality will change).



To acquire general wisdom,  
you need:

I. A checklist of mental  
models



2.A good search engine in  
your brain i.e. a system of  
relating experience to the  
models on your checklist

