PHASE 2: ASSIGNMENT 009:
WHERE GOOD IDEAS COME FROM

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1.0 Contents

2.0 Introduction 3

3.0 Core Subjects: Where Good Ideas Come from - Introduction 4
  3.1 The Adjacent Possible 4-5
  3.2 Liquid Networks 5-6
  3.3 The Slow Hunch 6
  3.4 Serendipity 6-7
  3.5 Errors 7-8
  3.6 Exaptation 8-9
  3.7 Platforms 9
  3.8 The Fourth Quadrant 10

4.0 Summary and Conclusions 11

5.0 References 12
2.0 Introduction:

The purpose or objective of this assignment is to assess the book titled “Where good Ideas are from”

The ideas and the basic concepts have been noted and creative thinking or innovation is described as having seven patterns or categories and if we attain and reach these patterns, then there is a greater chance of being creative or creating something.

The seven patterns are:

a) The adjacent possible
b) Liquid Networks
c) The Slow Hunch
d) Serendipity
e) Errors
f) Exaptation
g) Platforms

These are explained in more detail in the main text and also shows how these work and some examples are described.

The way that ideas and people collect together and the more people are together then generally the more innovation and creativity will be completed.

Finally the question is answered about “Where good ideas come from?”
3.0 Core Subjects: “Where Good Ideas Come From” : Introduction:

This gives a brief summary of the content contained in the book and summarizes the important aspects that have been researched and learned.

Creative thoughts and ideas are described to be ideal for generating innovation and usually are easier in the cities or on the Web.

The book explains that our thought shapes the space we inhabit, and our spaces return the favor.

Examples of Darwin’s world, changing ideas unfolding inside his brain, but he also needed different environments and tools to piece these thoughts together.

The author states for innovations there exists seven patterns, and the more we work with these patterns, the better we will be at tapping our extraordinary capacity for innovative thinking.

Each pattern is described in more detail below, but these patterns have a long history.

The key to understanding innovation and creativity is to find the differences in each, but understand similar patterns of development and collaborations are important in the whole process.

The seven key patterns are:

3.1. The Adjacent Possible:

This describes innovation must be possible within the surroundings it is used, as a sophisticated incubator system given to Africa and was used as an example but after a short period of time it broke down. No parts for its repair so it was useless.

Therefore a better solution was to develop an incubator with the materials available at that particular location. Even more strange was to make an incubator out of automobile parts- as these were freely available, and could be easily repaired if needed.

Examples are given of the atomic elements that make up a sunflower are the very same ones available on earth before the emergency of life, but you cannot create a sunflower in that environment, as it relies on many other different functions to create this.

The name for this set of all first order combinations is “the adjacent possible”

This phrase captures both the limits and the creative potential of change and innovations.
The adjacent possible defines all those molecular reactions that were directly achievable, but sunflower, mosquitoes and brain exist outside that circle of possibility.

The adjacent possible tells us that at any moment the world is capable of extraordinary change, but only certain changes can happen. If you explore this further then the boundaries of what is possible increases.

The history of life and human culture can be described as a gradual but relentless probing of the adjacent possible, each new innovation opening up new paths to explore.

The Web has explored the adjacent possible of its medium for faster than any other communications technology in history.

The adjacent possible is about limits as well as openings.

Therefore, no matter who we are, each of us live inside our own private versions of the adjacent possible.

This includes our surroundings, in our working lives, there are enormous potential to discover new configurations, ideas and innovations.

An important statement in the book is “What kind of environment creates good ideas”

The answer stated is innovative environments are better at helping their inhabitants explore the adjacent possible, because they expose a wide and diverse sample of spare parts, both mechanical and conceptual.

3.2. Liquid Networks:

The definition of a good idea is a “network”. A specific constellation of neurons (thousands of them) fire in sync with each other for the first time in your brain, an idea pops into your consciousness. A new idea is a network of cells exploring the adjacent possible of connections that they can make in your mind.

To put this into prospective the average neuron connects to a thousand other neurons scattered across the brain, which means the adult human brain contains 100 trillion distinct neuronal connections, making it the largest and most complex network on earth.

The second aspect is that the network be plastic, capable of adopting new configurations.

However the creative brain behaves differently from the brain that is performing a repetitive task. Likewise neurons communicate in different ways. The networking take on distinct shapes.
Therefore, how to push your brain into these creative networks, the answer is you have to place it inside environments that share the same network signature.

Examples given are cities, and in the sea the coral reef.

In addition ideas, creations, discoveries are often made in a collective environment—the liquid part of the network or idea.

3.3. The Slow Hunch:

If we study the history of innovation by researching great ideas that changed the world. We discover a path of breakthroughs and eureka moments that all had an impact on human society. All these are based on successful ideas.

Therefore, most great ideas first take shape in a partial, incomplete form.

Then, to progress these ideas, they need a key element that can turn the hunch into something truly powerful.

This missing element is somewhere else, living as another hunch in another person’s head. Liquid networks create an environment where these partial ideas connect, they provide a kind of dating service for promising hunches.

It is normal for most hunches that turn into important innovations unfold over long periods of time.

Throughout history before the time of computers, the great innovators would record their thoughts and findings in a very comprehensive manner. Often these written words would be ideas, or hunches that needed more thought and referenced before becoming a complete innovation. Therefore these notes were a vast collection of hunches waiting to become innovations, to be pieced together.

Another famous example given of a slow hunch is when the World Wide Web was introduced. This hunch took over 10 years to develop and create.

3.4. Serendipity:

Like any other thought, a hunch is simply a network of cells firing inside your brain in an organized pattern. But for that hunch to develop into something more substantial, it has to connect with other ideas. The hunch requires an environment where new connections can be made, the neurons and synapses of the brain itself, and the longer cultural environment that the brain occupies.

The trigger of these neurons connections have proved to be both chemical and electrical in nature.
Some of the best discovers, innovators or ideas come about as a consequence of initial ideas/thoughts becoming a part of a dream.

The brain activity during a dream is in chaos mode and in this mode is where the brain assimilates new information, explores strategies for responding to a changing situation.

The power of accidental connection is referred" to as “serendipity”

You don’t reach Serendipity by plotting a course for it. “You have to set out in good faith for elsewhere and lose your bearing serendipitously”

Serendipity is built out of happy accidents, the discovery part should be meaningful. It completes a hunch or opens more doors to be explored.

Serendipity needs unlikely collisions and discoveries but is also needs something to anchor these discoveries: otherwise, your ideas will be like carbon atoms randomly colliding with other atoms in the primordial soup without forming the rings and lattices of organic life.

Therefore, it is important to create environments that foster these serendipitous connections, in the space of one's own mind, and across the information networks of society itself.

Most of the discoveries have occurred during none routine activities that produce the spark, the idea.

Examples of maintaining the correct environment for serendipity that are commonplace are:

(i) Changing office/work layouts for easier thought paths
(ii) Flexible working patterns so that creativity can flourish.
(iii) Developing easy to use data bases so employees can comment and expand on ideas.

3.5: Errors:

An example of error, or it could be called perseverance or determination, is when De Forrest was trying experiments to develop the electrode/vacuum tube that would transform radio receivers, telephone switchboards, television sets.

During the experiments and development, De Forrest was flat out wrong about what he was inventing. The Audio was not really on invention but it was a steady, persistent accumulation of error.
Another error of discovery was Alexander Fleming discovery of penicillin when the mold accidentally infiltrated a culture of Staphylococcus he had left by an open window in his laboratory.

Therefore, the role of error in innovation is prominent, as error often creates a path that leads you out of your comfortable assumptions.

De Forrest was wrong about the utility of gas as a detector, but he kept probing at the edges of error, until he hit upon something that was genuinely useful.

Being right keeps you in your place, being wrong forces you to explore.

Another famous example is Benjamin Franklin, and he stated:

“Perhaps the history of the errors of mankind, all things considered, is more valuable and interesting than that of their discoveries. Truth is uniform and narrows it constantly exists, and does not seem to require so much an active energy, as a passive aptitude of soul in order to encounter it.

But error is endlessly diversified. ‘

3.6: Exaptation

An example given to describe “Exaptation” is from Githenberg. He did not develop an entire new technology from scratch but instead from borrowing a mature technology from an entirely different field, and putting it to work to solve an unrelated problem.

He was successful of taking a technology that was used to crush grapes, and consequently made the wine, which made people drunk and modified it to a printing press to create a machine used for mass communication.

This is where the word for this kind of borrowing came from, called “Exaptation”

An organism develops a trait optimized for a specific use, but then the trait gets hijacked for a completely different function.

During evolution many alterations were noted, just the same as if mutation, and error and serendipity unlock new doors in the big spheres adjacent possible, explanations help us explore the now possibilities that lurk behind these doors.

A match you light to illuminate a darkened room turns out to have a completely different use when you open a doorway and discover a room with a pile of logs and a fireplace in it. A tool that helps you see in one context ends up helping you keep warm in another. This is the essence or meaning of exaptation.
The collective meetings of people with the same key interests are good in creating support networks that increases the engagement and productivity of the group. But encouragement does not necessarily lead to creativity. Collisions do- the collisions does that occur when different fields of expertise converge is some shared physical or intellectual space. It is this situation that exaptation will flourish.

Exaptation also prospers on another scale the shared media environment of a physical community.

3.7: Platforms:

Generally more ideas, innovations and creations have to be built on platforms. These platforms have already been built, and from these platforms a new idea is built or created.

Numerous examples are highlighted including Darwin, Guier and Weiffenbach who in a matter of hours, had gone from listening to measuring to tracking the Russian satellite “Sputnik.”

From this platform the reverse of the location of orbiting satellite’s was completed which started the Global Positioning System G.P.S that we know today.

Another example of a highly successful platform is that of “you tube” that was built by stitching together elements from three different platforms: the Web itself, Adobe’s Flash Platform, which handled all the video playback, and the programming language JavaScript, which allowed end users to embed video clips on their own sites.

Other examples of building platforms such as Twitter, Google and Facebook.

Another interesting project or a real building platform is 16 miles from Delaware’s Indian River Inlet, and dive 80 feet down into the open waters of the Atlantic Ocean, exists an underwater city thriving on the sea floor.

This underwater city was developed by depositing 700 metro/subway train carriages onto the bottom of the sea to create an artificial roof, providing a durable shelter for mussels and sponges that are often destroyed by the sandy floors of the existing sea.

This has also created a breeding ground for a diverse group of fish, which has seen a 400% increase in the numbers since the artificial reef was formed.
3.8 The Fourth Quadrant:

An example of one innovation given is first the problem of a colour printing company that had large problems with humidity, that it would affect all aspects of the printing process.

A solution to the problem lead to the development and creation of the air cooling system.

The inventor, a certain Mr Carrier’s model of innovation is a perfect example. But is his example an exception and not the general rule?

Therefore, with any innovation there are four classifications or quadrants:

First Quadrant- this correlates to the Private Corporation or solo entrepreneur

Second Quadrant- to the market place where multiple private firms interact

Third Quadrant- to the amateur scientist or hobbyist who shares information/ideas

Fourth Quadrant- this corresponds to open-source or academic environments, where ideas can be built upon and re-imagined at large, collaborative networks.

“Where Do Good Ideas come from?” is a question that the author summarizes.

In this last two centuries from 1800-Present the pattern changes of where the good ideas comes from when compared to the history before.

Solo, amateur innovation (Quadrant 3) surrenders much of its lead to the rising power of networks and commerce (Quadrant 4):

This shows that the majority of breakthrough ideas emerge in collaborative environments.
4.0 Summary and Conclusions:

The topic of innovation is vast and the book describes this in explicit details and in relatively simple terms.

The ways that innovation and creativity is cleverly broke down into seven main patterns and these are described perfectly.

This then makes the reader think and if you have had ideas and innovations then all that is written then one can relate to all that is described.

Interesting is the fact that certain creativity and ideas come from dreams. Does this mean then for example someone who dreams often is more likely to be creative or innovative.

The reason why I ask this is generally I never dream but at given times I can be innovative. Maybe this is a path for more research to give another aspect.

Maybe if we are shown the right mood to be in for a dream when we sleep then our creativity will increase.

Another aspect that the author mentions is always recording and logging ideas is a prime importance in developing a creative mind. This is much the same thinking as 400 years ago with the great inventors and innovators.

With the computers the innovation or the way ideas are created have changed and are more to be an add on, to existing technology or ideas.

As we develop more then, the increase in creativity and innovation will slow down.

Finally the author must be congratulated as a reader this places be in the perfect position to be more creative and innovative as my next stage of studies involves writing a thesis which is all based on innovation.

Reading and understanding the concepts will allow me and my mind to be in the perfect condition in the preparation of writing my thesis for the next part of study.
5.0 References:

“Where Good Ideas Come From” - The Natural History of Innovation: by Steven Johnson and printed by Riverhead books