Interimconsult

INTERIMCONSULT INSIGHTS

EXPERIENTIAL DIVERSITY AND BOOSTING INNOVATION

MAKING INNOVATION HAPPEN

Experiential Diversity - Why it matters?

Diversity matters when it comes to innovation. The means by which ideas are turned into some form of value is complex and influenced by people in numerous ways based on their lived experiences. These lived experiences will be linked to a range of factors including demographics and social context, but also cognitive diversity and people's day-to-day experiences of life - including their career experiences.

This unique individual mix of demographics, social context, cognitive diversity, and career experience is what we describe here as 'Experiential Diversity' .

So why does this perspective matter and what is it that experiential diversity can tell us about innovation? In essence, our unique experiences as human beings, our sliding door moments, and the phenomenon of serendipity make us what we are today, shaping and limiting the way we see the world, consciously and unconsciously. Individual experience takes us so far, but when we bring different people with different experiences together, their collective experience is amplified. Silo-based thinking is reduced, and frames of reference changed, fostering an increase in the collective capability to innovate.

The challenge for businesses and organisations is how to ensure that experiential diversity is used and valued, not suppressed, by organisational culture or ways of working. The narrower the range of collective experience, the more limited the innovation opportunities, and the more limited the ways of working. The silos and echo chambers that constrain diverse thinking and the way work gets done must be avoided.

One reason experiential diversity is so important is that innovation can come in many different forms - it is not just about product design, service development, or new technology. Innovation is different to ideation and invention, neither of which may not create sustainable value as single acts. The purpose of innovation should be to create value, in all its forms, and an appropriate definition is:

Turning Ideas into Sustainable Value

Taking this perspective, it becomes clear there is a compelling need for experiential diversity throughout the innovation journey. The subject matter expertise needed to overcome the technology or scientific barriers to innovation is only one of the areas of expertise needed to create sustainable value. The innovation journey needs expert input from other areas at different points on that journey, such as innovation management, user engagement, culture change, marketing, and business management. To succeed, the mix must vary over time - product development is different to marketing - so the need for a mix that varies is clear.

The best results come from being proactive and creating new opportunities that bring people with different experiences together, to share knowledge and perspectives, and leverage their collective wisdom. In a highly networked world, informed by an increasingly deep understanding of science and engineering, most innovations can be foreseen as inevitable. They come about from a series of adjacent steps forward, taking us through a change of state beyond today's snapshot in time.

The uncertainty of innovation is about who turns an idea into some form of sustainable value, when it happens, how it happens, and the scale and timing of its impact.

Serendipity plays a significant role, as some of the less known stories in this paper will show – whether it be traffic lights, internet-based telephony, semiconductor design tools, or just post-it notes. Serendipity played a role. Whilst chance has a role to play, the most successful innovators know that serendipity-led innovation is influenced by environmental prompts so different people with different experiences can easily interact as part of normal work.

This is why an organisation's capability and capacity to innovate will benefit from an increased understanding of how experiential diversity is linked to boosting innovation.

The Different Dimensions of Experiential Diversity

There is no formal defintion of experiential diversity, but when it comes to organisational innovation, it is reasonable to consider the following four dimensions:

- Demographic characteristics
- Social Factors
- Cognition
- Career Experience

Demographic Characteristics

The Equality Act 2010 protects people against discrimination, harassment and victimisation in the workplace and wider society on the grounds of 9 protected characteristics:

- Age
- Disability
- Gender reassignment
- Marriage and civil partnership
- Pregnancy and maternity
- Race
- Religion or belief
- Sex
- Sexual orientation

But just complying with the the Equality Act alone is not sufficient to boost innovation.

The Home Office Diversity and Inclusion Strategy

The recognition that *'differences in thought and outlook lead to ideas and news ways of thinking'* is now widely accepted - as indicated by its inclusion in the Home Office Diversity and Inclusion Strategy. Alongside *'representing modern Britain in all its diversity'* and *'attracting and retaining the best talent'* it is one of three key principles.

Diversity and Inclusion Strategy 2018 - 2025

Inclusive by Instinct

Representing modern Britain in all its diversity to deliver the best outcomes for the UK
We exist to serve the UK population. To do this to the best of our ability, we must understand and reflect the diverse and changing population of the UK.

Differences in thought and outlook lead to ideas and new ways of doing things
Everyone brings their own unique perspective and outlook. By creating a listening and engaging culture where people can have the confidence to share ideas, together we can identify new ways of doing things.

Attracting and retaining the best talent
The more inclusive our environment, the more likely it is that everyone will fulfil their potential. We want to reach out to diverse communities and ensure they get the best out of the Home Office as an employer. When we can be ourselves, we perform better, enjoy ourselves and stay with the Home Office for longer.

Social Factors

Social context includes the various elements within society that can influence individuals and groups' behaviours, attitudes, beliefs, and lifestyles. Examples include:

- Socioeconomic status
- Education
- Family dynamics
- Place
- Community values
- Social Networks
- Peer Groups
- Access to Resources
  - Health
  - Infrastructure
  - Transport
  - Technology
  - Media platforms

Cognition

Cognition describes the mental processes that determine:

- How we think about things
- How we solve problems
- How we learn
- Our perspectives and preferences
- Our understanding

Career Experience

Career experience is defined by:

- Roles
- Organisations
- Sectors
- Subject Matter Expertise
- Business Management
- Culture Change
- Marketing
- Operations Management
- Technology
- Finance
- Commercial

The Innovation Journey

Many organisations, teams and people struggle with making innovation happen by turning ideas into sustainable value.

Great ideas do not guarantee great innovations. At any one point in time, there are several different factors that influence the route taken to turn an idea into sustainable value.

The innovation journey is often a near-random walk of different size steps with the occasional quantum leap across a complex landscape – which can only be navigated by people. Ingenuity, resilience, management, and planning all play a role, but as with any other journey, so does serendipity. History tells us that innovation outcomes are always subject to the whims of timing and context. This is even more nuanced since there is no single journey starting-point, path, or end-point – the innovation journey is infinite in duration.

The navigators of the innovation landscape must change along the journey. As the terrain changes, different expertise is needed. The subject expertise needed to prove a concept, demonstrate a prototype, or develop a minimum viable product will differ to some degree, but are a world apart from the expertise needed to plan and launch a sales and marketing campaign - an essential component of turning an idea into some form of value.

As organisations scale, innovation management must ensure effective governance to monitor risks and returns, and constrained resources are utilised effectively. Reporting and measurement of innovation programmes needs to be set up to provide the data and insights needed to support decision making.

The importance of people means that organisational culture and collaboration matter. Behaviours and values influence engagement with suppliers, customers, and end-users, and the relationships can make the difference between success and failure.

Successful innovation relies on diverse capabilities and skills, not all of which can be defined at the outset of the journey. Many people will have many of the diverse capabilities and skills needed at any one time, but not all. Entrepreneurs are different, some rely heavily on their technical capability, and need business and commercial support. Some are led by a vision, but do not have the financial. technical or operational experience to bring together the resources needed to deliver the vision.

Experiential diversity can help navigate the innovation journey.
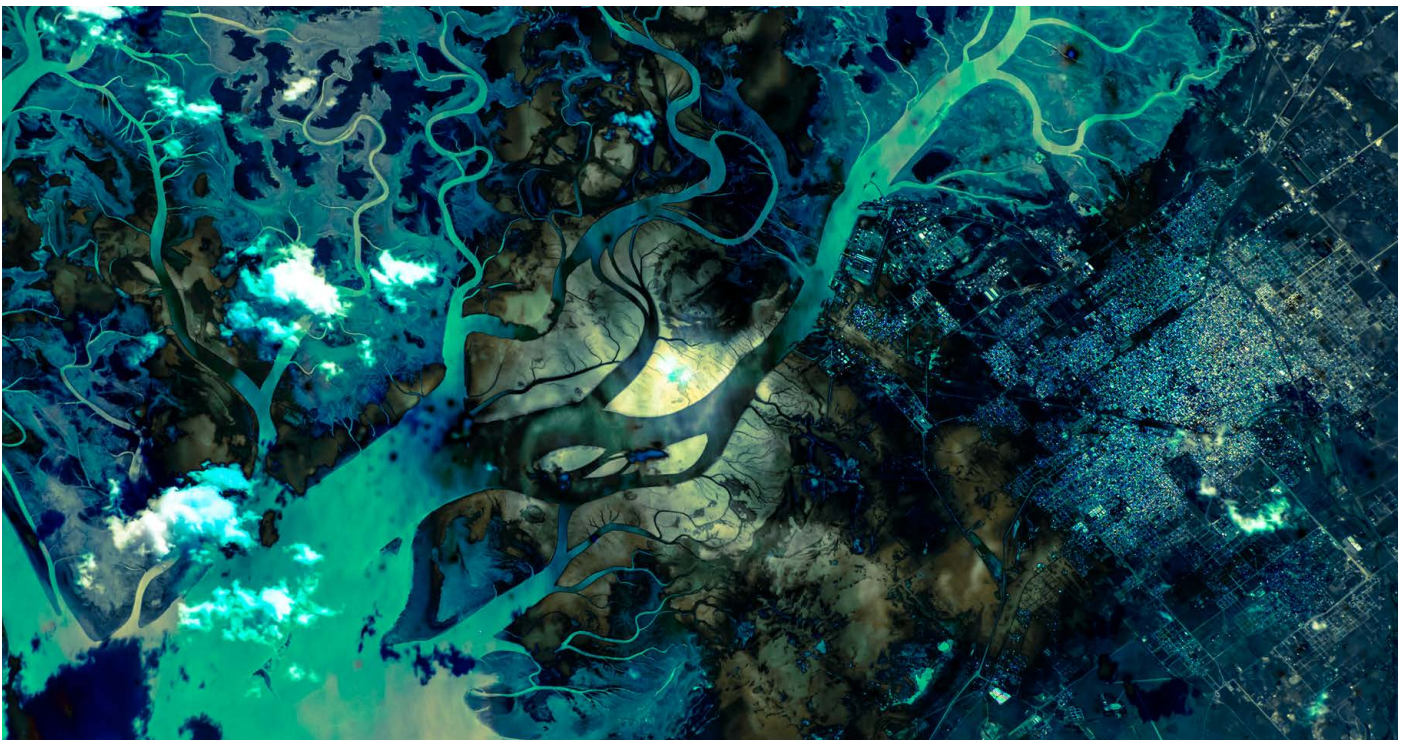
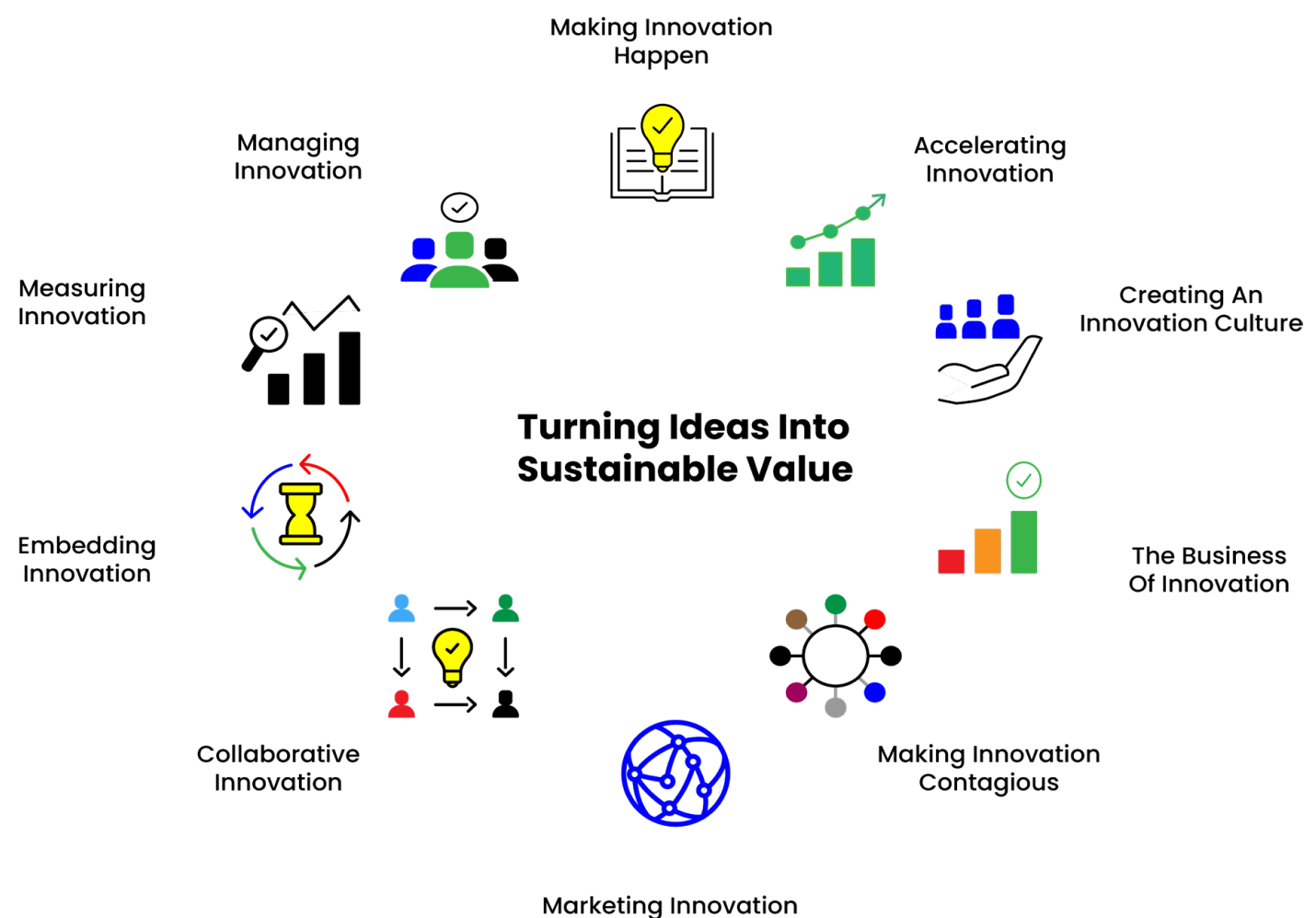# The Making Innovation Happen Framework

The Interimconsult Making Innovation Happen (MIH) Framework can be used to help reframe the way that people, teams, and organisations look at innovation, the different types of innovation journey, and how to systemically turn ideas into sustainable value.

The 5 Making Innovation Happen Principles

1. The main purpose of innovation is to turn ideas into sustainable value.

2. Sustainable value can be created in many ways.

3. Innovation is complex, comprising a mix of people, processes, technology, and culture that varies over time.

4. Innovation is an inclusive activity.

5. Changing innovation outcomes means changing the innovation system.

The MIH Framework has 10 Innovation Themes and 15 Innovation Enablers

The 10 MIH Themes

Making Innovation Happen

Managing Innovation

Accelerating Innovation

Measuring Innovation

Creating An Innovation Culture

Turning Ideas Into Sustainable Value

Embedding Innovation

The Business Of Innovation

Collaborative Innovation

Making Innovation Contagious

Marketing Innovation

The 15 Making Innovation Happen Innovation Enablers

Define organisational purpose

Define the value you want to create

Develop an organisational learning capability

Increase people orientation

Create a BAU innovation system

Advocate innovation

Plan investment to create sustainable value

Measure for insight and benchmarking

Fail and learn fast

Create stickiness

Increase brand awareness

Identify super-connectors

Take context led micro-interventions

Build relationships (B2B, B2C)

Manage innovation risk

Experiential Diversity Enables Innovation

Demographic Characteristics
Age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race, religion or belief, sex, and sexual orientation

Social Context
Socioeconomic status, education, family dynamics, place, community values, social networks, peer groups, and access to resources
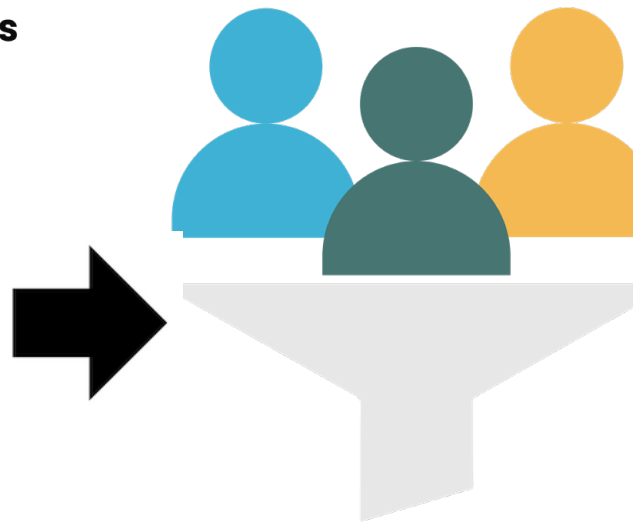
Cognition
How we think about things, how we solve problems, how we learn, our perspectives, our preferences, and our understanding
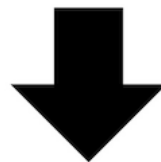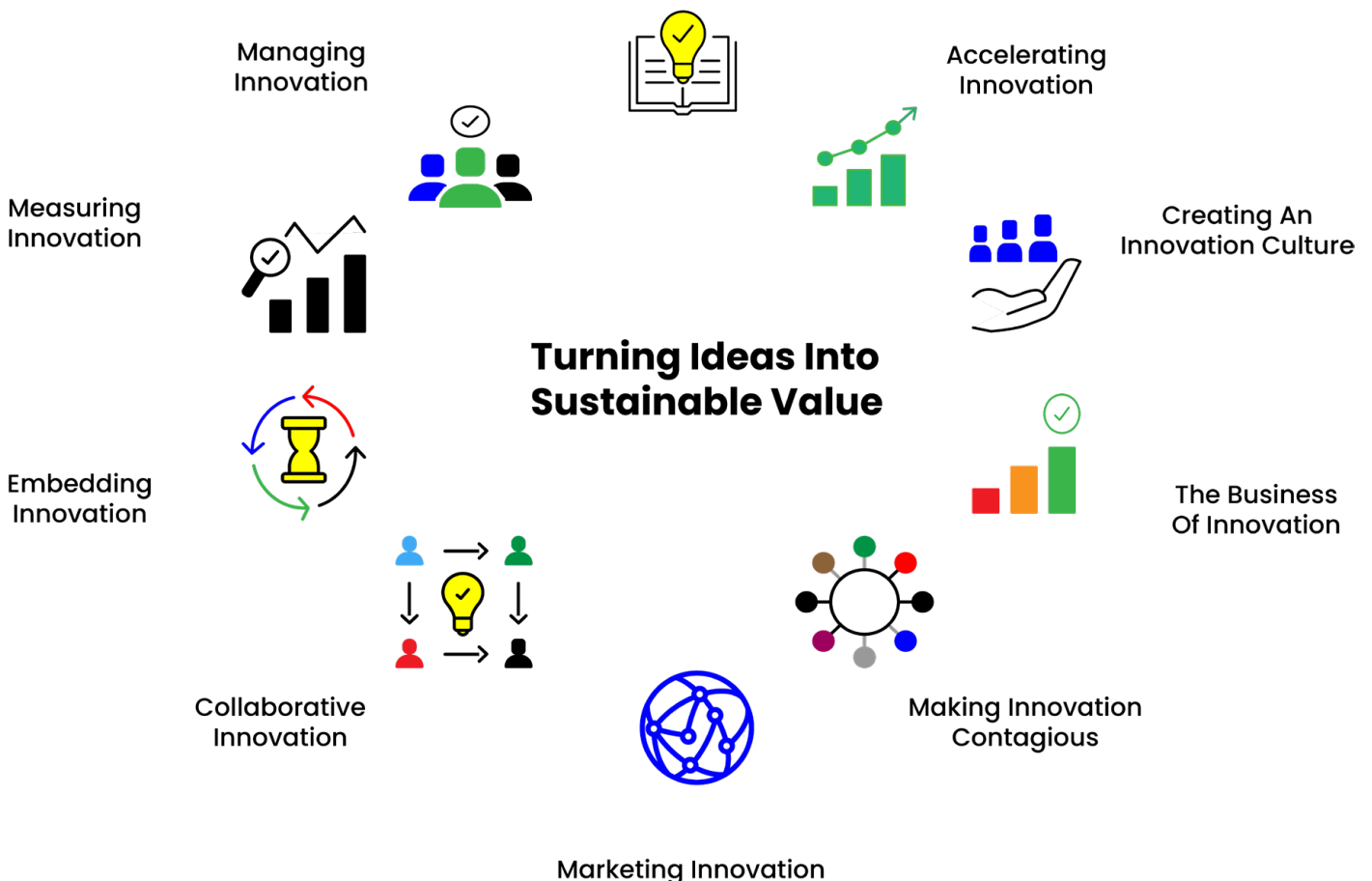
Career
Roles, organisations, sectors and subject matter expertise in areas such as: business management, culture change, people, marketing, operations, technical, finance, and commercial

EXPERIENTIAL DIVERSITY

Making Innovation Happen

Managing Innovation

Accelerating Innovation

Measuring Innovation

Creating An Innovation Culture

Turning Ideas Into Sustainable Value

Embedding Innovation

The Business Of Innovation

Collaborative Innovation

Making Innovation Contagious

Marketing Innovation

Creating Sustainable Value By Chance

At first sight, diversity does not explain why the phenomenon of serendipity has so often been a trigger for innovation – so called 'lightbulb' moments.

But frequent and varied interactions with people having different lived experiences is more likely to lead to the development of new thinking, ideas, and perspectives.

This is serendipity in action and is something that Samantha Copeland describes as 'discoveries that occur at the intersection of chance and wisdom' and 'what we retrospectively interpret as revolutionary breakthroughs typically begin life as rather normal work'.

The challenge is to increase the number of intersections between chance and wisdom as part of our normal work - establishing experiential diversity can address the challenge.

Adjacent Possibiliities and Inevitability

One of the most obvious ways that experiential diversity increases innovation is where people cross paths at different times and identify 'adjacent possibilities' that are inevitable breakthroughs - although the timing, place and how may not have been foreseen - that combine previously unconnected knowledge, learning, and expertise from different fields.

The illusion of authentication, and validation, can be created by the speed and volume of repetition of the same message across multiple platforms, often happening by chance. This is not a new phenomenon.

Honda Motorcycles

Honda's plan to enter the premium US motorcycles market to compete with Yamaha and Harley Davidson pivoted when their salesmen were asked about the small Super Cub motorcycles they were using as they travelled around California visiting prospect distributors. Every day they would travel around on the Super Cubs, with random but increasing numbers of on-the-road interactions increasing interest.

The market for premium motorcycle sales in the USA was proving too competitive and without any initial foothold, but given the interest in the small motorcycles, the Honda sales team decided to pivot, changing its strategy to selling Super Cubs, using the slogan 'you meet the nicest people on a Honda'.

Targeted Drug Delivery

The invention of the Scanning Tunnelling Microscope in 1981 at IBM's Zurich Research Laboratory allowed scientists to visualize and manipulate individual atoms and molecules on surfaces. The interdisciplinary nature of nanotechnology research and development – combining physics, chemistry, engineering, biology, and materials science – has since led to the development of specific nanoparticle drug delivery systems.

These controlled drug delivery systems enable the drug to be transported by nanoparticle carriers to the specific target area. Once the nanoparticle carriers reach the site, the drug is released. This means the impact of drug delivery on surrounding tissues and the drug's side effects are limited.

Targeted therapies for individual patients can be based on their individual molecular profiles, avoiding poor biodistribution and enabling better control of drug dose and concentration at the target site.

Rebel Ideas

Matthew Syed's book - Rebel Ideas: The Power of Diverse Thinking Differently – explores collective diversity, where innovation is not the result of an individual's brilliance and their individual insights, but networks of people, collective brilliance, and collective insights.

The focus is cognitive diversity, not demographic diversity, with Syed's broad definition based on the 'difference in perspective, insights, experience and thinking styles', especially when it comes to dealing with complex problems. Through a range of case studies Rebel Ideas explains what it means by cognitive differences and why it matters.

The concept of 'adjacent innovations' is talked about in terms of recombinant innovation - succinctly described by Matthew Ridley in evolutionary terms as 'ideas having sex' - where ideas meet and mate. Syed points out that over recent years, recombinant innovation is becoming the main path across society as a whole - not just science and technology. Research that combined 'anthropology and network theory' explores how people who live in different places and who work in different institutions connect. Similarly, the combination of 'sociology and evolutionary biology' looks at the interaction between genes and culture, where the path of natural selection has been observed to be influenced by cultural norms.

The increase in adjacent innovations, or recombinant innovation, has a strong link to the cross-pollination that happens when groups with experiential diversity work together. Rather than the incremental innovation that often develops from fixed mindsets and groupthink, what are conventional ideas from different fields can trigger leaps forward.

The development of satellite navigation provides a dear example where the combination of smartphones with built-in GPS, access to digital maps, route finding algorithms, and mobile data networks have been combined. Anyone with a smartphone can pinpoint their own location and, with very little pre-planning - find their way to a destination, anywhere in the world.

The development and ubiquity of handheld satellite navigation has evolved at a much faster rate than would have been the case if it had been limited to just GPS experts learning new habits and the incremental innovations that were evidenced by the development of single-purpose GPS location products and services.

However, once exposed to cross-disciplinary ideas, people 'reinvent' themselves based on what is a new context. Learning and adaptation to our environments is natural, people can change and are not just defined by their experiences at any one point in time in their lives.

There is a strong evidential basis to demonstrate that experiential diversity creates one of the key conditions for innovation - collective insights that can break down silo-based thinking and the echo chambers that inhibit creativity, creating an environment for individual adaptation and learning.

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Innovation Stories

Traffic Lights

Very Large Scale Integration Technology (VLSI)

Voice over IP (VOIP)

Post-It Notes

Traffic Lights

Garret Morgan

At the age of 46 in November 1923, Garrett Morgan, patented a manually operated traffic light to alert drivers that they would need to stop.

Based on his successful career as an entrepreneur - he invented one of the first traffic light designs that entered operation in the USA after witnessing an accident between a car and a horse carriage at a traffic junction in Cleveland.

He acquired a patent for a simple version of the now common three-way traffic light with illuminated 'GO' and 'STOP' signs that could be raised or lowered.

The patent covered the United States, Britain, and Canada and Garret eventually sold the rights to General Electric for around $40,000.

Born in Kentucky in an African American community, Garret Morgan was the 7th of 11 children. His parents were freed slaves. He left school aged 14 and at the age of 16 he moved to Cincinnati as a handyman then in the garment and textile industry - becoming interested in how things worked and how they could be improved. He opened his own sewing machine sales, garment manufacture and repair shop at the age of 30 years. His inventions and patents included:

- *Sewing machine accessories – including the zigzag mechanism and belt fastener.*
- *A fire safety helmet 'breathing device' that was developed into a gas mask, used in World War I.*
- *Hair care products – including hair straighteners.*

David Mellor

Following a design commission by the Department for the Environment, David Mellor, a designer born in 1930, produced the design for the modern traffic light system that is now common across the UK and many parts of the world.

Born in Sheffield, Yorkshire, David Mellor was the son of toolmaker for the Sheffield Twist Drill Company. In 1942 ,aged 11 he left school to attend the junior art department of the Sheffield College of Art, training in metalwork, pottery, woodwork, painting, and decorating. He went on to the Royal College of Art in 1950, and in 1952 won a travelling scholarship to Sweden and Denmark. In 1954 he set up a silversmithing workshop in Sheffield, designing and making silver artefacts – including cutlery and plates – Pride – manufactured in Sheffield.

As a designer, he believed you should be able to design buildings, tools, or anything. Some of his own designs included:

- *Bus shelters and seating.*
- *Streetlights and bollards.*
- *The 'Eclipse' hacksaw, still used in schools.*
- *Garden shears.*

Very Large Scale Integration Technology (VLSI)

Lynn Conway

Born in 1938 in New York, Lynn Conway developed an early interest in music and the outdoors – then studied at MIT then Columbia University's School of Engineering and Applied Science in 1963. She was then recruited by IBM in New York but dismissed in 1968 after she revealed her intention to transition gender (Note: IBM later apologised in 2020).

Following transition, she joined Xerox PARC in 1973, then becoming a Professor at MIT, where she developed innovative methods and tools for designing complex integrated circuits, at scale.

Following transition, she joined Xerox PARC in 1973, then becoming a Professor at MIT, where she Lynn's career involved:

- *Developing the Multi-Project Chip that made VLSI implementation fast, low cost, and available at large-scale.*
- *Setting up the first course in VLSI design in the world.*
- *Joint author of the seminal Mead-Carver textbook Introduction to VLSI Systems that transformed semiconductor design, going on to sell over 70,000 copies around the world upon which universities built their courses.*

On Innovation

"When I transitioned that might appear to be a decision; but that was a point in life where … you can now actually make something, make it happen. But that was fore ordained in childhood because I'd always struggled with that. And so the entire life before that was figuring out how to do that.

And I think that's the way a lot of engineering is done … you can't figure out how to cross that river, but you want to cross that river, and you're trying to figure out stepping stones, a bridge, how do you make this, how do you make that?

Somewhere along the line, all of a sudden, things fall in place, and you see the pieces you can put together to cross the river".

Oral History of Lynn Conway
Interviewed by: Dag Spicer
Recorded: February 24, 2014 Mountain View, California

On Serendipity

"The evolution of a system of knowledge has a certain dynamic. There is a great deal that happens concurrently. There is the necessity for various activities to reach some minimum sufficient stage of development in order to support activity at some other level.

If things are staged right, and people are in close contact with each other and are highly motivated by effective leadership, then a lot of these things can move rapidly forward together. But remember, there is always a strong element of chance when folks go off exploring.

The unfolding of the events depends upon what is discovered, and upon how well the opportunities presented by the discoveries are seized upon and exploited by the overall community of explorers".

The MPC Adventures", by Lynn Conway, Microprocessing and Microprogramming The Euromicro Journal, Vol. 10, No. 4, November 1982,

Internet Telephony - Voice Over IP (VOIP)

Danny Cohen

Aged 36 years, Danny Cohen first demonstrated a form of packet network voice transmission in 1973 - this was developed into Network Voice Protocol which operated across the early version of the Internet (ARPANET).

He gained his mathematics degree at the Israel Institute of Technology in 1963. He then moved to America to study at the Massachusetts Institute of Technology (MIT), and then Harvard University where he received a PhD in computer graphics.

His academic career continued, joining the University of Southern California to work on a packet-voice project to transmit speech over ARPAnet – the US Department of Defence project forerunner to the development of the internet – using a TCP/IP protocol suite.

As a computer scientist and mathematician, his work included:

- *Development of the first real-time visual flight simulator to run on a standard computer – laying the foundations for game simulator development.*
- *Prototyping and commercialisation of a Local Area Network (LAN) technology to support distributed simulation systems.*
- *Expert witness services for VOIP patent infringement cases.*

Marian Croak

Born in 1955 in New York, she became interested in chemistry at a young age and went on to secure a degree in Quantitative Analysis and Psychology at the University of Southern California.

Her first role was associated with human factors, looking at the interaction between people's lives and technology. Marian first stepped into the field of digital transmission of voice, data, and video at AT&T Labs, where she and her team made a case to use the TCP/IP protocol for network-based transmission.

The work was a key enabler in the development of new ways of collaborating using audio and video conferencing.

Marian's career involved:

- *Prolific involvement in over 200 patents in VOIP and other fields.*
- *Patenting the 'text-to-donate' technology to support the charity fundraising needed following Hurricane Katrina in 2005 – then used to raise $43m following the 2010 Haiti earthquake.*
- *Becoming Vice-President of Engineering at Google in 2014.*

Post-It Notes - A Chance Encounter

At the age of 37, Spencer Silver, a scientist at 3M, was attempting to create a super-strong adhesive in 1968 - but instead ended up creating a weak, but reusable adhesive.

Several years later, another 3M employee, Art Fry, aged 43, frustrated with his bookmark constantly falling out of his book, recalled Silver's adhesive and used it to create the first Post-it Notes.

Their chance encounter, the recollection by Fry of Silver's failed experiments, and the trigger to solve a recurring problem, were unique.

Spencer Silver

"As part of an experiment, I added more than the recommended amount of the chemical reactant that causes the molecules to polymerise. The result was quite astonishing. Eventually, I developed an adhesive that had high "tack" but low "peel" and was reusable. I was frustrated. I felt my adhesive was so obviously unique that I began to give seminars throughout 3M in the hope I would spark an idea among its product developers".

Reference: First Person: 'We invented the Post-it Note' By Art Fry and Spencer Silver. As told to Sarah Duguid Financial Times, December 3rd 2010
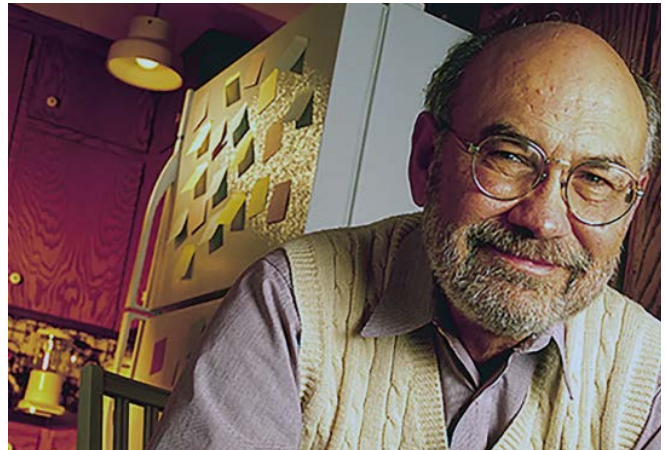

Art Fry

"I was at the second hole on the golf course, talking to the fellow next to me from the research department when he told me about Spencer Silver, a chemist who had developed an interesting adhesive. I decided to go to one of Spencer's seminars to learn more. I listened to the seminar and filed it away in my head.

One day I had a practical problem of my own. I used to sing in a church choir and my bookmark would always fall out, making me lose my place. After a few experiments, I made a bookmark that didn't leave residue and tested it out on people in the company. They liked the product, but they weren't using them up very fast"

Reference: First Person: 'We invented the Post-it Note' By Art Fry and Spencer Silver. As told to Sarah Duguid Financial Times, December 3rd 2010
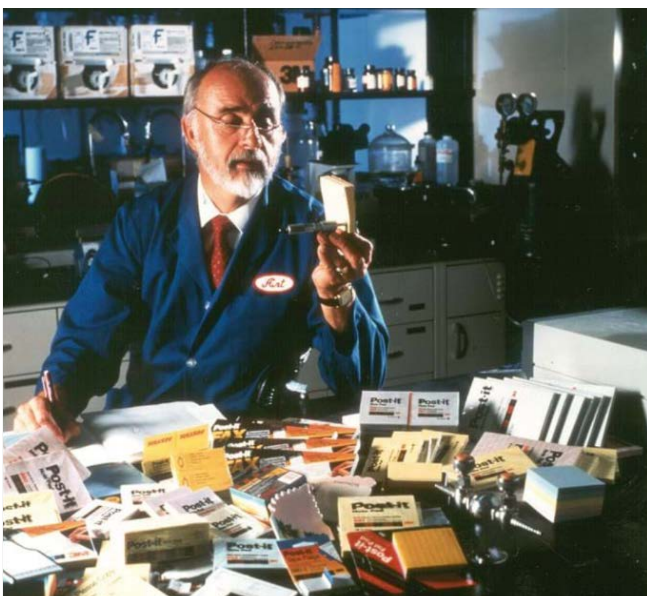
Do we owe these innovations to just these people?

In each of the innovation examples, there have been many other factors that have influenced the outcomes. Innovation is the archetypal infinites journey with no endpoint. Nonetheless, even when context is different, the enablers and barriers are often similar.

Although traffic lights have become ubiquitous in modern cities around the world, the patented designs and inventions did not mean their adoption was not instantaneous, with several factors including:

- Technology limitations – lighting unit technology and sequential timers that can be configured for use at different, and sometimes complex, junctions were made simpler by the transition from mechanical to electrical systems, and enclosure manufacture benefitted from increased materials selection options.

- Standardisation and regulation – the first Convention on the Unification of Road Signals was signed on March 30th, 1931, where traffic light colours (red, amber, green) became the standard.

- High planning, installation, and maintenance costs – driven by the need for enabling works on public infrastructure for power and telecoms.

- Public concerns about safety – some early signals malfunctioned, leading to accidents and there was some resistance to the replacement of traffic officers with the new technology.

In the case of VLSI technology, the relentless drive and investment being made to reduce the size and cost of semiconductors meant its rollout was inevitable, but success was subject to several factors:

- Resources – the VLSI development needed a large-scale, interactive and experimentational network, including the communications facilities made available by the ARPAnet, and the computing facilities connected to the ARPAnet at Xerox PARC and at various universities.

- Collaboration Tools - the academic and industry networks enabled rapid diffusion of knowledge through a large community; any participant could broadcast a message to many people very quickly – rare at the time.

- Market Contagion – VLSI has huge potential and became the enabling technology that increased computer processing power for modern technology and semiconductor chip design including:

  - Smartphones, tablets, laptops, and smartwatches.
  - Cloud computing server scale and performance
  - Artificial intelligence – pattern recognition systems, deep learning architectures and algorithms can be implemented using developments in computing power, data, and connectivity.

Similar challenges were faced during the VOIP innovation journey but innovation itself was always certain to happen following the digitalisation of voice messages following the design of semiconductors that allowed analogue to digital signal conversion. Many barriers were like those above. The innovation journey requires different enablers to be in place throughout the innovation journey:

- Resources – the development, manufacture, marketing, and logistics needed by businesses to establish a value chain that enabled the rollout of VOIP, and its follow-on products and services could only be undertaken by large multinationals.

- Regulation – the blurred lines between traditional telecoms systems and internet-based services demanded new regulation associated with emergency service access, number portability, and interconnection with existing technologies.

- Infrastructure availability – limited broadband availability at the outset prevented access-for-all and had to be overcome to provide the reliability and connectivity needed for market mass adoption of high-quality voice transmission over digital networks.

- Security and privacy – VOIP technologies opened new issues associated with eavesdropping, identify theft, and cyberattacks, needing new solutions such as encryption and firewalls.

- Consumer acceptance – the industry had to address scepticism about reliability, usability and call quality needed investment on marketing and consumer education about VOIP and its benefits.

The Post-It Note innovation was different. The chance discovery, its limited profile, and the fact that a problem needing a solution had not been identified, led to different innovation dynamics. Nonetheless, beyond the moment of serendipity between Spencer Silver's failed experiment and Art Fry's chance conversation, more work was needed:

- Proving User demand - when a manager doubted the Post-It Notes' potential, the manager's secretary was given a palette of them and asked to keep track of their distribution. *"Two weeks later she was on her second pallet and the manager changed his opinion"*.

- Marketing - the market introduction was tricky because the product was so novel – people did not understand the usefulness of Post-it Notes until they were given samples

- Manufacturing - the production was also beset with technical problems, and designing the required machines took several years.

- Innovation Culture - for all the millions 3M made from the product, neither of its inventors were entitled to any royalties – part of 3M's strategy for encouraging the open exchange of ideas among employees is to severely limit the amount of financial gain an individual can make.

Even when it came to the choice of the distinctive canary-yellow colour of the Post-It note, this was not a choice of design.

It would be tempting to think that it's the result of some serious thinking and market research which determined that the paper should ideally be light enough for use with any colour pen, but bright enough to stand out from the generally white papers they'd be stuck to. The truth is considerably more serendipitous. After being asked the question via the company's Twitter feed, Geoff Nicholson, the company's former VP, revealed that across the corridor from his laboratory the team managed to find some scrap paper which they'd used in their experiments. It was pure chance that the paper happened to be canary yellow".

Reference: Spencer Silver and Arthur Fry – In Search Of An Application.

Article by Claudia Flavell-While, The Chemical Engineer - 9th March 2018

5 Tips to Increase Innovation

1. Recognise that everyone's lived experiences and frames of reference are much wider than those just associated with demographic and cognitive diversity - our unique experiences as human beings, our sliding door moments, and the phenomenon of serendipity make us what we are today, shaping and limiting the way we see the world, consciously and unconsciously.

2. Ensure that experiential diversity is valued and not suppressed by organisational culture – avoiding silo-based thinking and echo chambers that constrain diverse thinking.

3. Create an environment where normal work fosters innovation, all day, every day - just interacting by adopting 'the water cooler approach' is not enough.

4. Bring different people with different experiences together as part of normal work – collective experience is needed to navigate the different points along of the innovation journey to turn ideas into sustainable value.

5. Be proactive and create new opportunities to bring people with different experiences together, to share knowledge and perspectives, and leverage their collective wisdom.

A Final Thought

The complex nature of experiential diversity means it is not something that, beyond demographics, is easy to measure of quantify. Nevertheless, its symptoms may be clearer to spot.

Positive Indicators

Team Dynamics

- Avoiding use of the terms 'Them' and 'Us'.
- Experiential diversity is monitored and corrected if needed.
- Most team meetings involve challenging and supportive dialogue – listening to learn and timely contributions are valued above a compulsion to be seen to engage.
- Actively seeking and receiving feedback.
- Team members change based on their expertise throughout the whole innovation journey.

Actively searching for how individual's experiences can add value based on differences in:

- Demographics
- Social context
- Cognition
- Career Experience

Work environments promote different types of engagement and have different resources that increase intersections between chance and wisdom 'during normal work'.

Negative Indicators

Team Dynamics

- Use of the terms 'Them' and 'Us'.
- A "Skunkworks" approach.
- Most team meetings become broadcasts and are dominated by 'hierarchy' and/or 'experts' in the room.
- Silence when asking for feedback.
- Team members remain the same throughout the whole innovation journey.

Generalisations, of any kind, based on differences in:

- Demographics
- Social context
- Cognition
- Career Experience

An over-reliance on work environment set up as the primary enabler - water cooler moments. Soft furnishings, and game facilities are not enough!

References and Further Reading

Rebel Ideas, Matthew Syed, 2019

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Author

Paul Corcoran

Founder and Managing Director

Interimconsult

Tel: 07988 686471

Management Consultancy Business Founder and Owner, Board Member and Executive with over 20 years' experience working in FTSE 250, AIM listed, PE-backed and privately-owned businesses and social enterprises.

Subject Expertise: strategy, innovation, complex programme delivery, artificial intelligence, systems integration, and systems thinking.

Sector experience in Rail, Integrated Transport, Infrastructure, Technology, Education and Defence.

Author of over 50 publications.

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e: **paul@interimconsult.co.uk**

w: **https://interimconsult.co.uk**