The Transferability of Brilliance

Presented at the 12th ISKO Italy Meeting,
April 10-11, 2025,
University of Calabria

Pontish Yeramyan
Alexander Murzaku, Ph.D.

Gap International

Brilliance is the exceptional intellectual capacity, creativity, and profound insight that drives groundbreaking ideas and innovations - a rare and invaluable asset. The successful transfer of brilliance from one person to another is even more rare, posing significant challenges in perpetuating exceptional thinking and innovation across generations, or from master to apprentice, coach to trainee, and other such relationships. This rarity stems from the inherent difficulties in capturing and conveying this special form of tacit knowledge, intuition, and deep cognitive processes that, altogether, constitute brilliance. Traditional mentorship and educational models often focus on explicit knowledge transfer, neglecting the nuanced thought patterns, internal motivations, and experiential wisdom that underlie exceptional capabilities.

Transferability in this study refers to the ability to transfer a mindset, to transfer the kind of thinking that makes a person special. This ability allows not only them, but also others to gain the mindset that would allow them to perform at an extremely high level and accomplish outcomes that society recognizes as exceptional and that leave a lasting mark. There is also the aspect of being able to apply the same mindset leading to brilliance on new challenges facing them. It is assumed here that the ability to transfer a mindset leading to brilliance is a desired outcome in general. Examples of such transfer ability can be observed in various aspects of life, in science as well as in arts, in trades or in sports, in politics, in businesses, etc.

A concept adjacent to brilliance is genius. The ability for genius performance is the capacity to generate original, transformative ideas or achieve exceptional mastery in a specific domain, often reshaping how we understand or approach complex challenges. It goes beyond mere intelligence or skill. It's the ability to see beyond the obvious, and to connect seemingly unrelated concepts. Whether it's a scientific breakthrough, an artistic masterpiece, or a simple yet profound insight, genius leaves a lasting impact.

While the word brilliance, which we are using in the title, is considered less presumptuous than genius, in this paper we use genius and brilliance interchangeably. To justify this interchangeable usage, as an experiment, we asked one of the Large Language Models to try building a semantic map across languages and see if the distinction remains when analyzing these two words ("brilliance" and "genius") in other languages (see the appendix at the end). It looks like Mandarin just scales from talented to heavenly talented, German's Genialität covers both, Hindi has a significant semantic overlap, while Russian only has гений keeping brilliance limited to the physical shininess (same as Japanese). This inexact distinction between brilliance and genius, gives us license to use them interchangeably with a slightly stronger bias for "genius".

In this exploration of genius transfer, we will travel through centuries, through countries, and through knowledge domains, in an effort to find patterns that might emerge.

Leonardo Da Vinci's legacy continues to amaze us, even after more than 500 years after his death. He operated in the intersection of nature, science, and art. He dedicated significant time and a large percentage of his writings to investigate and explain "seeing" and "distinguishing". Many biographers and students of his work summarize his opus as a journey toward "knowing how to see" ("sapere vedere")[1]. It's telling that he was so preoccupied with the importance of seeing and distinguishing, that the word "occhio" (eye – the organ of seeing) appears in more than 900 folios across his writings[2] where he explains how to observe and to distinguish. In his further studies, Da Vinci observed, in minute details and with obsession, how birds or insects

fly, as well as air currents, the movement of the wings, and even their anatomy. He studied them, he drew them, he tried for years to recreate that miracle of nature, and he encoded it all in his Codex Atlanticus (e.g. folio 1051 v). But, to our knowledge, even though there are drawings of what look like flying machines, he didn't get to build one. And even though he had disciples that followed him closely, none of them tried to explore further those ideas. We could say that his disciples didn't fully learn how "to see" like Leonardo.

In our current timeline, five hundred years later, Da Vinci still has numerous disciples. There are teams of aerodynamics engineers who are trying hard to achieve net zero flying. They are using the ideas about wing shape, airflow, as well as many other ideas explored and documented many centuries earlier by Da Vinci. As seen in the illustration, Da Vinci's descriptions of his findings are drawn very meticulously, but his genius, the kind of thinking that made him special, that made him obsess about flying, that made him see what others could not see, is not in his treatise.

Continuing in the current timeline, the 21st century, let us turn our eyes to Steve Jobs, the co-founder of Apple. He, too, placed himself at an intersection: the point where humanities, art, science, and technology meet. From calligraphy to software user experiences, from poetry to marketing, from fixed reality to reality distortion field, he impacted the whole world of hi-tech and beyond. More than a dozen biographies of Steve Jobs have been written, and more than seventy interviews have been recorded and made available. As of April 16, 2025, just his Wikipedia page had 317 references. It could be safely said that his accomplishments, his way of working, his relationships with people are well described. His brilliance and his genius are recognized. His obsession for excellence is well documented.

Jobs, himself, put significant effort to generate excellence and superior performance from everyone. In a message to Apple employees, he quoted Aristotle writing, "We are what we repeatedly do. Excellence, then, is not an act, but a habit." Excellence and superior performance were visible in all the products Apple released while he led that organization.

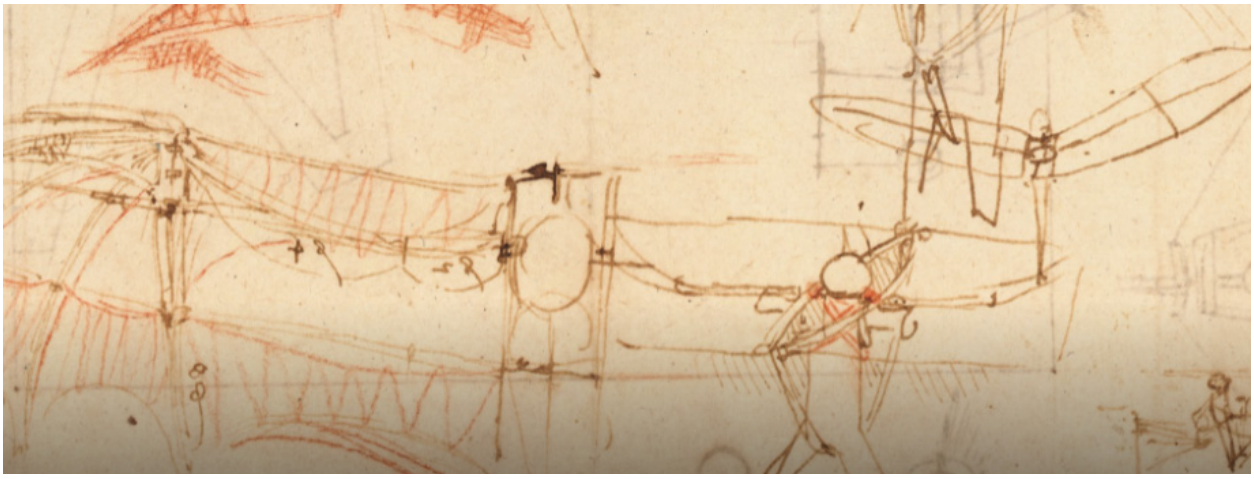


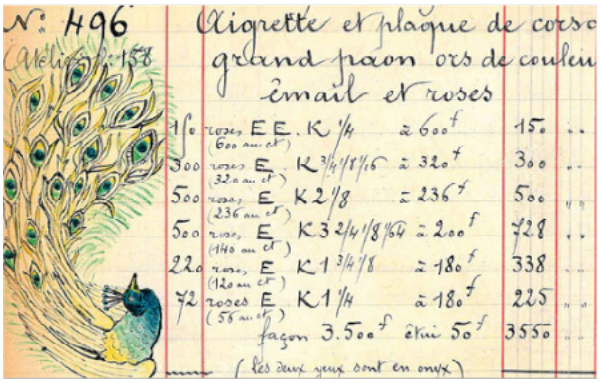
Figure 1: Sketches of wings (https://artsandculture.google.com/story/codex-atlanticus-studies-on-flight-biblioteca-ambrosiana/PAXhyk99zaJBlg?hl=en)

[1] See https://www.britannica.com/biography/Leonardo-da-Vinci accessed April 21, 2025

[2] See https://www.leonardodigitale.com/en/search-in-text/ accessed April 21, 2025

His disciples, still today, are able to recreate and reshape what was created in that period and, most importantly, they created a financial giant that few thought was possible. What is lacking, according to various papers and studies, is the ability to create or invent brand new products that attract the admiration of the whole world. Steve Jobs "had a near-superhuman ability to know what to put into a product and what to leave out. He could make the seams between hardware and software nearly vanish. He made hard decisions that were often questioned, but almost always prescient and – eventually - widely imitated."[3] Even with all the writing about him and all the questions asked to him, we never learned how he saw the world, why he obsessed about excellence in everything, and what caused his superhuman ability to create perfection.

An example of genius transferred in the same domain is the Mellerio family. They have been excelling in goldsmithing since 1515 in France: excellence transmitted through 15 generations of goldsmiths[4].



They, too, placed themselves between art and technology and science and constantly get inspiration from Italian renaissance.

The youngest Mellerio describes his ascendance to the excellence typical of his family: "Since I was a child, I understood the pride that the family took in running it, generation after generation. I grew up with my brothers constantly hearing conversations about jewelry: my parents discussing their ideas in front of us and with us. I always projected taking part in the writing of the next chapters of Mellerio's legacy."[5]

15 generations of conversations, of closely working together, of drawing hand over hand, of passing the passion from one generation to the other.

Another goldsmithing dynasty, lasting more than a hundred years, is the Buccellati family in Italy.

The latest representative is Lucrezia who designed iPhone and iPad covers bejeweled with sunburst diamonds inspired by the sketches of Leonardo da Vinci (there you have both Da Vinci and Jobs coming together in goldsmithing). She says: "I feel I have a very different aesthetic than my father and grandfather, but we are all linked together by our DNA, which is very identifiable in our designs."

In the quest for a successful transfer of genius and of brilliance that lasts for generations, one of the most common situations appears to be families that maintained excellence and superior performance in what they do through hundreds of years in some cases (like

[3] https://www.fastcompany.com/90682991/what-apple-has-lost-and-gained-since-steve-jobs-died-10-years-ago - accessed April 16, 2025.

[4] https://www.mellerio.fr/pages/au-fil-du-temps - accessed April 17, 2025.

[5] https://www.naturaldiamonds.com/historic-diamonds/meet-the-26-year-old-upholding-mellerios-diamond-legacy/- accessed April 17, 2025

the Balyan architects in the late Ottoman Empire). While we are examining more in detail a couple of case studies where the genius is transferred from generation to generation in the same domain, there are plenty of examples where the representatives of a new generation are exceptional in a whole new domain. Such examples can be considered the Hearsts moving from the mining industry to mass media, William James going from the real estate genius of his parents to creating a lasting legacy in various scientific fields, or Lavoisier, or Hughes, or many more such cases.

The noticeable patterns that emerge from these case studies show that in the case of Da Vinci and Jobs, we have plenty of explicit knowledge[6] transfer (books, treatises, videos, paintings) but limited brilliance transfer which is a special type of tacit knowledge. In the Mellerio and Buccellati businesses there still is explicit knowledge transfer (hundreds of thousands of drawings and process descriptions), but most importantly they were able to transfer their genius from generation to generation. If we analyze some of the linguistic expressions they use to describe their journeys, we can see that what is transferred is a lot of tacit knowledge: mindset, passion, inspiration, purpose, love, continuity.

Unlike explicit knowledge which is transferred through documentation or through apprenticeships, genius or brilliance transfer present a different set of challenges. Brilliance is not simply a collection of facts or skills. It encompasses things that are harder to verbalize, are labeled as intuitive, and deeply embedded in an individual's experiences. This type of knowledge is notoriously difficult to articulate and, therefore, to teach.

Brilliant people often possess an internalized network of insights, heuristics, and mental models that guide their thinking and problem-solving processes. These cognitive frameworks have been honed over years of practice, reflection, and iterative learning. However, when attempting to convey their expertise, they may focus on explicit knowledge - procedures, formulas, and observable behaviors - without examining the underlying thought processes that drive their brilliance. In this case, people that want to learn from them, can only replicate the processes that they observed or were told to follow. Unfortunately, access to the essential elements needed to build their own innovative capacities, to create and invent like them is extremely limited.

Documentation remains a vital though different tool in addressing these challenges. By systematically recording the cognitive processes, reflections, and experiential insights of brilliant individuals, we are moving beyond traditional documentation methods that focus on end results or surface-level descriptions. Instead, the focus of this kind of examination are thought processes, reflections and insights, context, and, most importantly, why they do what they do, what causes their insatiable curiosity, and how they see the world, getting to know how to see (Da Vinci's "sapere vedere" legacy).

Documentation should include detailed accounts of reasoning, decision-making steps, problem-solving strategies. Also, documentation should describe not just successful pathways but also dead-ends and failures that contributed to learning. By capturing this depth of information, documentation provides the next generations with a more holistic understanding of brilliance. It opens a window into the minds of

[6] "Explicit knowledge" is the most well-known type of knowledge and examples of it include knowledge assets such as databases, white papers, and case studies. "Implicit knowledge" is information that has yet to be documented and that can be referred to as "know-how" knowledge. Michael Polanyi describes "tacit knowledge" as knowing more than we can tell or knowing how to do something without thinking about it, like riding a bicycle (Polanyi, 1967). It is typically acquired through experience, and it is intuitively understood. As a result, it is challenging to articulate and codify, making it difficult to transfer to other individuals.

experts, allowing learners to internalize not just what was done, but how and why it was done.

A mere interview (often defined as a structured conversation where one participant asks questions, and the other provides answers) doesn't appear to be a satisfactory tool for capturing brilliance. There are many celebrated interviewers like Oprah Winfrey, Larry King, or the newer generation like Tim Ferriss and other podcasters. They create an environment where their guests share intimate stories and curiosities. But we rarely get their essence. In the efforts to capture and document brilliance we use what we call an inquiry (which could be defined as a process examining and probing deep knowledge, tacit or not). There is a subtle but profound difference between a standard interview (as good as it can be) and an inquiry when it comes to learning from someone's genius.

In studying thousands of inquiries and what was conveyed in those conversations, we compiled a list of what we call Genius Universals[7] [seven major themes characterizing the mindsets that underlie a brilliant accomplishment]. The mindsets represented by these clusters of words seem to be present when people are in their genius:

- Possibility / Creation / Freedom / Choice
- Purpose / Contribution / World Impact / Legacy
- Extremeness / Intensity / Obsession / Above and Beyond
- Curiosity / Discovery / Learning / Growing
- At-Stakeness / Conviction / Resolve / Perseverance
- Joy / Excitement / Exhilaration / Spirit
- Togetherness / Relationship / Connection / Love

[7] Murzaku, Yeramyan, et al. *Discovering and documenting brilliance - A novel multimodal annotation method* AIDAinformazioni, N. 1-2 – gennaio-giugno 2024, pp. 117-144.

It's amazing that people remember very clearly what their thinking was, what their emotional state was. There is empirical evidence for this [accumulated through more than 20 years and more than a thousand inquiries]. When people are in the moment, sharing the experience, and not simply describing what happened, that's when we get the possibility of brilliance transfer, that's when genius becomes either alive for yourself, or it is transferred to other people, that's when the young Mellerios or Buccellatis get their family's genius in their thinking.

Now this process, as effective as it is, is quite time consuming, and not scalable. New methods need to be discovered. With the powerful introduction of AI in collecting the knowledge of the world, what could be its role in documenting the most special form of knowledge, the genius and the brilliance shown in the most exceptional moments of the human evolution?

Our working hypothesis, built on observations from thousands of inquiries, is that everyone has genius in them. The transfer becomes possible when they are committed to maximize their own genius and want to learn from the best. The main tool to facilitate the discovery and documentation of genius is the inquiry process that allows the codification of someone's genius. What we aim to replicate are mindsets: in addition to what people do and how they do it, we document their mindset and how their mindset activates their brilliance. Thousands of handwritten folios from Da Vinci, thousands of jewelry designs weren't enough and wouldn't be enough to allow the transfer of genius. It's the discovery of a mindset that allows it. The conclusion of our analysis is that genius transfer happens when people find that they already have it – it's in them: they too have genius. Maybe that's why genius and brilliance are transferable. The corollary is that genius is transferred not only from person to person but also from moment to moment in the life of a person.

Appendix: A note about the terms brilliance and Genius

Language	Brilliance	Genius	Notes
English	Brilliance (brightness, radiance; exceptional mental acuity or talent)	Genius (extraordinary innate intellectual or creative ability)	Overlaps in exceptional mental ability, but "brilliance" emphasizes radiance or vividness; "genius" highlights innate intellectual prowess.
German	Brillanz, Glänzendheit	Genialität, Genie	"Genialität" may encompass both brilliance and genius; "Genie" specifically denotes a person of genius.
Hindi	चमक (chamak - shine), प्रतिभा (pratibhā - talent)	प्रतिभा (pratibhā - talent/genius)	प्रतिभा can represent both brilliance (talent) and genius, implying considerable semantic overlap.
Japanese	輝き (kagayaki)	天才 (tensai)	"輝き" means shine or radiance; "天才" aligns with the Chinese term for genius.
Mandarin	才华 (cáihuá)	天才 (tiāncái)	"才华" translates to talent or ability; "天才" means "heavenly talent," suggesting an extraordinary gift.
Russian	блеск (blesk)	гений (geniy)	"Блеск" primarily means shine or glitter; "гений" directly corresponds to genius.

Table 1: brilliance vs. genius in various languages (ChatGPT: prompted April 16, 2025)

ABOUT GAP INTERNATIONAL

Gap International is a global management consulting company that partners with executives in producing exceptional growth through extraordinary performance. Gap International offers products and services that provide a disciplined, systematic approach to sustainable profitable growth. “Transforming Organizations” is our company’s purpose and is our only work. For over 40 years we have built expertise and a track record of results in transforming the performance of executives and entire organizations from the expected into the extraordinary.

Gap International works in a variety of ways, ranging from enterprise-wide consulting initiatives to individual leadership growth and performance programs. We consult individuals, teams and organizations to break through existing paradigms and past-based assumptions that keep performance at current levels. The context for our work is breakthrough — breakthrough thinking, execution, leadership, strategy and performance — with an intense focus on breakthrough outcomes.

Our breakthrough methodologies are currently at work inside leading Global 500 companies. We are earning a worldwide reputation for creating leaders who are inspired, motivated and enthusiastic about coming to work, for building business executives and managers who are powerful, effective, and dynamic leaders, and for partnering with clients to produce extraordinary business results.

Gap International
700 Old Marple Road
Springfield, PA 19064, USA
+1 610 328 0308

gapinternational.com