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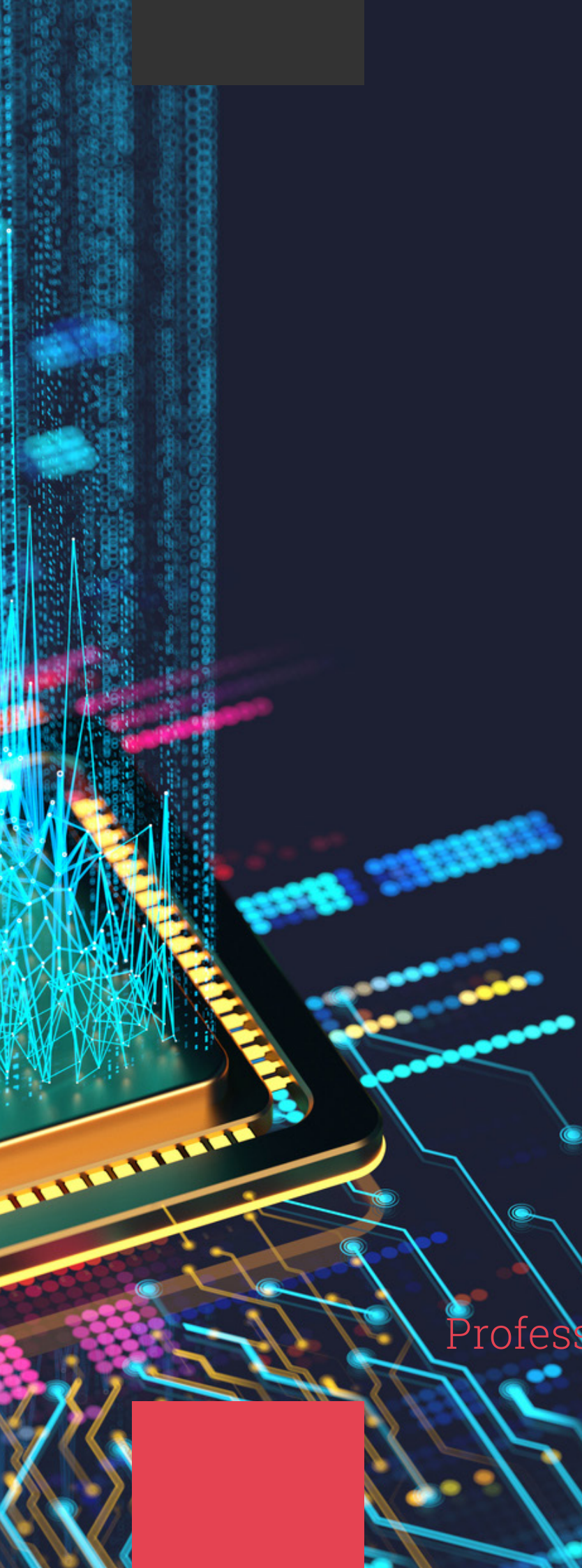
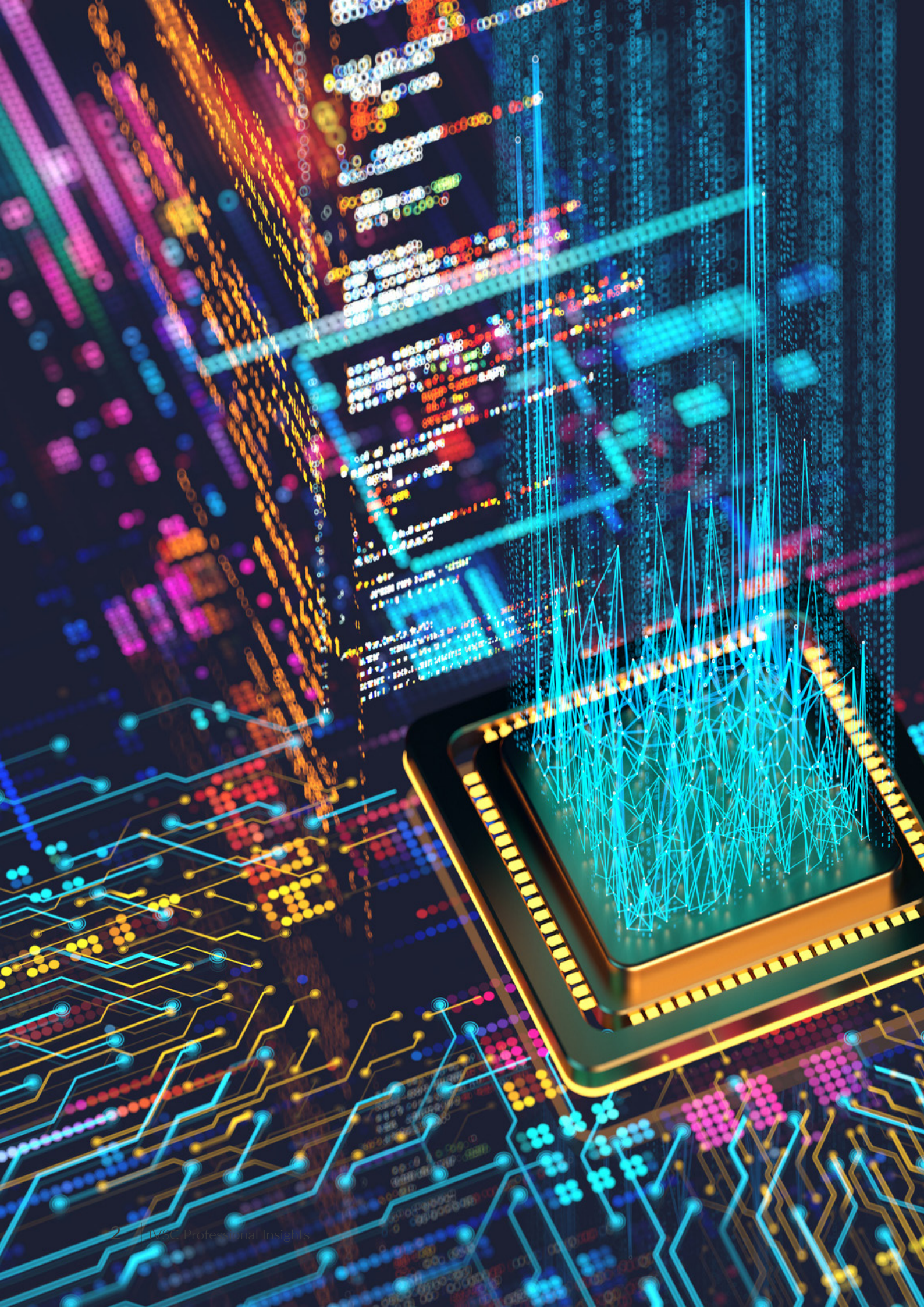


Bridging the Gap: *Rethinking Financial Reporting for the Intangible Asset Revolution*

A Discussion with Professor Anup Srivastava



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Click or scan the QR code to download the accompanying slides, prepared and presented to the IVSC's Business Valuation Board by Professor Srivastava on Tuesday 18 June 2024.

Bridging the Gap: Rethinking Financial Reporting for the Intangible Asset Revolution

A Discussion with Professor Anup Srivastava

Thank you for inviting me to speak to the IVSC's Business Valuation Board. It's an honour to follow in the footsteps of my esteemed colleagues and mentors such as Michael Mauboussin, Dan McCarthy, and Aswath Damodaran, who have all contributed significantly to the field of valuation.

My recent work has focused on intangible assets, valuation, and accounting, but today I want to start with an unusual topic: temperature. At what point do the Celsius and Fahrenheit scales converge? The answer is -40 degrees, where -40 Celsius equals -40 Fahrenheit.

This trivia is relevant because I am currently in Calgary, where I frequently experience temperatures as low as -40 Fahrenheit. I am originally from Delhi, where summer temperatures soar to +40 degrees Celsius.

Reflecting on my journey

from Delhi's heat to Calgary's extreme cold highlights the stark contrasts we also see in valuation principles between physical and intangible assets.

In the physical world, we deal with atoms and molecules creating more atoms and molecules. This world operates under the predictable laws of classical mechanics established by Newton. Conversely, the intangible world resembles Heisenberg's uncertainty principle, where knowledge begets more knowledge, and uncertainty is inherent. Traditional valuation approaches, such as worksheet-based methods that project cash flows and earnings, are akin to classical me-

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chanics—they work well for tangible assets but fall short when applied to intangibles.

The Rise of Intangible Capital in the Knowledge Economy

Today's leading companies, such as Apple, Alphabet (Google), Microsoft, Amazon, and Meta (Facebook), derive their immense value from intangible assets. This marks a significant shift from the mid-20th century when the most valuable companies were industrial giants like General Motors, US Steel, and Standard Oil. The key assets driving today's market leaders include business ideas, innovation, brands, organisational strategies, networks, relationships, data, software, and human capital. These are not adequately captured by traditional financial statements *[refer to slide 4 in the linked presentation]*.

In June 2024, the market capitalisations of these giants are staggering: Apple at $3,300 billion, Microsoft at $3,280 billion, and Nvidia at $3,080 billion, among others. This contrasts sharply with the 20th-century giants like General Motors and US Steel, whose valuations are a fraction of those numbers *[Slide 5]*. The combined valuation of surviving 20th-century giants does not add up

to valuation of even one modern tech giant. This shift underscores the increasing importance of intangible assets in determining company value.

The Market-to-Book Ratio Discrepancy *[slide 19]*

A critical indicator of the underreporting of intangible assets is the market-to-book ratio. For instance, Apple's balance sheet in 2020 did not mention the brand, technological know-how, or its vast network of subscribers and suppliers, three of its most important resources. In October 2023, Apple's book value of equity was $56 billion, whereas its market value was $2,700 billion, highlighting a significant disparity *[slides 20-21].*

This discrepancy is not unique to Apple. The price-to-book ratios of other leading tech companies in October 2023 were similarly high, indicating a broader issue of underreported intangible assets. For example, Alphabet (Google) had a price-to-book ratio of 7, Microsoft 12, and Amazon 8 *[slide 23].*

Inconsistencies in Financial Reporting *[slide 22]*

Current financial reporting practices reveal inconsistencies, such as in

the treatment of tangible versus intangible assets. While tangible assets like buildings and equipment are recognised on the balance sheet, intangible investments in areas like R&D are often expensed as incurred. This practice leads to underreported asset values and skews representations of a company's financial health *[slide 22].* The more a modern technology company invests in building its future, the bigger are the losses it reports.

Moreover, entertainment content development costs (e.g., Netflix) and oil and gas exploration costs (e.g., Exxon) are capitalised based on a cost accumulation model. In contrast, most internally generated intangibles are expensed as incurred, creating further inconsistencies *[slide 22].*

The Evolution of Company Valuation *[slides 6-11]*

The shift from tangible to intangible assets is also reflected in the composition of the world's richest individuals. As of June 2024, the list includes Bernard Arnault, Elon Musk, Jeff Bezos, and Mark Zuckerberg, all of whom have amassed their wealth through companies heavily reliant on intangible assets *[slide 8].*

The rise of tech IPOs further illustrates this trend. Companies like Snowflake, Palantir, and Airbnb, with IPO valuations in the billions, have built their businesses on intangible assets such as data, software, and customer relationships *[Slides 9-10]*. Similarly, India is emerging as a fast-growing startup ecosystem with over 80 unicorn startups as of 2021, emphasising the global shift towards intangibles *[slide 11]*.

Addressing the Challenges in Financial Reporting *[slides 47, 48, 49]*

To bridge this gap, we need to rethink and enhance our financial reporting systems. Disclosure of intangible

investments, key performance indicators (KPIs), and the recognition of intangible assets' value, at least as supplementary disclosures, if not on balance sheets, are crucial steps. These improvements will help align financial statements more closely with the true drivers of value in modern businesses.

Improving Income Statements and Balance Sheets *[Slides 51-70]*

Improving income statements involves not just accounting for R&D but also other intangible investments such as advertising, brands, organisational strategies, and customer relationships *[Slide 51]*. The process of capitalisation, however, presents challenges. Determining the percentage of intangible outlays to be capitalised and the amortisation period is complex due to the unique nature of intangible assets *[Slides 52-54]*. A possible solution lies in reclassifying outlays into categories such as maintenance, invest-

ments, and non-recurring expenses. This approach can provide a clearer picture of a company's financial health and future prospects *[Slides 61-64].*

Additionally, perpetual inventory models can be used to better estimate the value of internally generated capital *[Slides 67-69].*

The Role of Machine Learning in Valuation *[Slides 81-85]*

Intangible investments possess some unique characteristics: they are less likely to erode with use, facilitate easier interaction and repackaging with other intangible investments, and can be rapidly deployed in multiple markets with minimal capital expenditures *[Slide 80].* Our approach explicitly considers these traits.

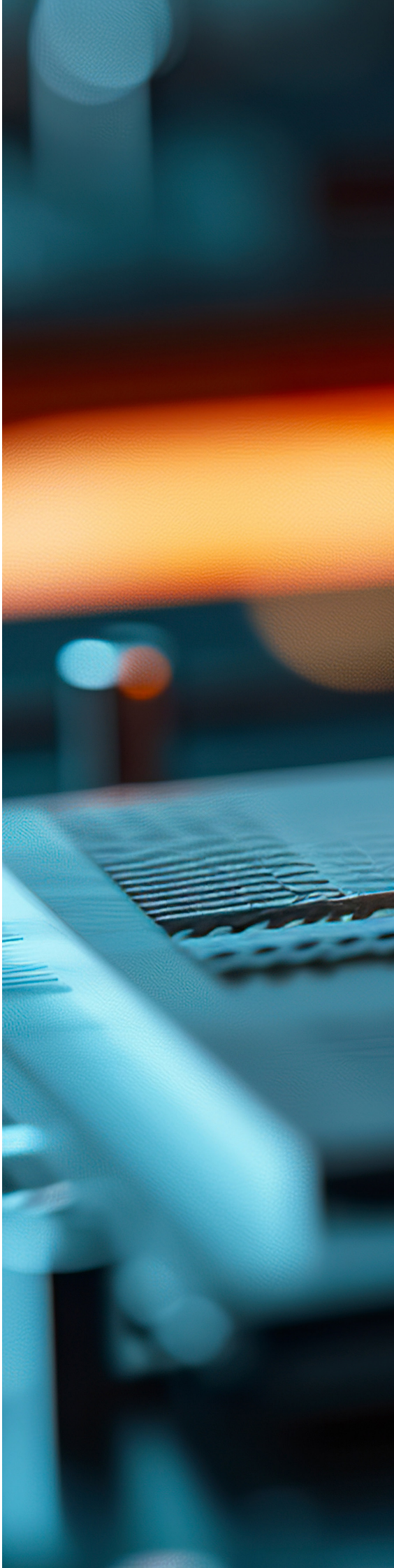
Machine learning offers a promising avenue for improving the estimation of intangible assets. By incorporating scalability factors and non-linear payoffs, machine learn-

ing models can provide superior out-of-sample predictions compared to traditional linear models *[Slides 81-85].*

Conclusion *[Slide 94]*

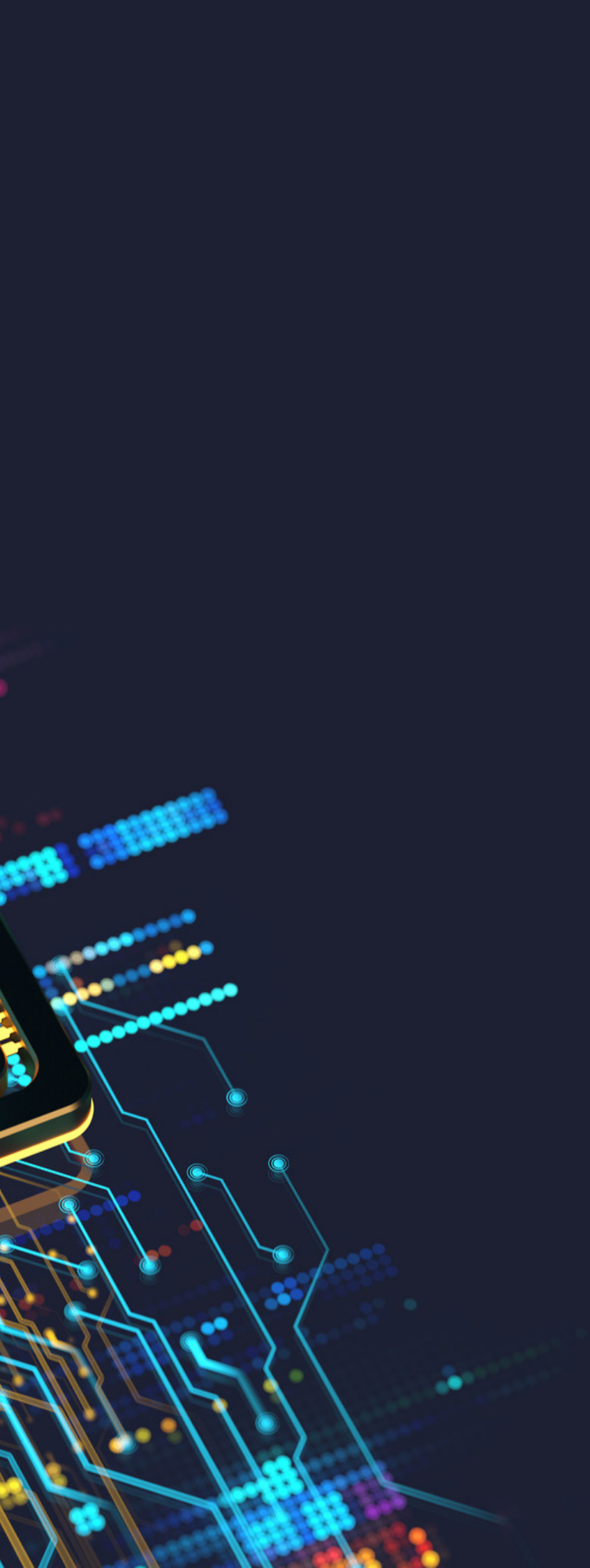
We are in the midst of the fourth (or fifth) industrial revolution, with the corporate sector rapidly adapting to new realities. Business disciplines, including strategy, accounting, finance, and marketing, must evolve to stay relevant. Accounting and valuation practices, in particular, must keep pace with changing business models to provide accurate and useful financial information. Developing skills to navigate these uncharted waters is essential for professionals in the field *[Slide 95]*.

By acknowledging and addressing the distinct nature of intangible assets, we can create more accurate and informative financial reports that better reflect the true value of modern enterprises. This shift will not only enhance the relevance of financial statements but also support better decision-making for investors and stakeholders, ultimately driving sustainable economic growth in the knowledge economy.



For further reading:

- Rajgopal, S., E. Basirian, A. Iqbal, and A. Srivastava. 2024. Reassessed Earnings with Capitalized Intangibles, Working Paper
- Chintha, B. R. and A. Srivastava. 2024. Scalability of intangible investments. Working Paper.
- Govindarajan, V., Rajgopal S., A. Srivastava, Iqbal, A., and E. Basirianmahabadi. 2024. Why Are Companies That Lose Money Still So Successful? Harvard Business Review (June).
- Srivastava, A., and S. Rajgopal. 2023. The case for reinventing financial reporting in the 21st century. Journal of Applied Corporate Finance, 1–8.
- Srivastava, A., V. Govindarajan, A. Shah, and L. Enache. 2023. Hiding in Plain Sight, or Sticking Out Like A Sore Thumb? The Wealth of Intangibles. California Management Review (October).



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