

Twenty years of history: the 20th anniversary special issue of *Journal of Intellectual Capital*

The *Journal of Intellectual Capital (JIC)* recently celebrated its 20-year history of publishing high-quality scientific articles exploring research questions about intellectual capital (IC), including human capital, structural capital and relational capital. To commemorate these 20 years of publishing, the editorial team announced a special issue on this history and to explore the future of this field of scientific inquiry. This special issue carries on the tradition of excellence in research and offers insightful articles for our readers.

In the previous century, most companies were valued primarily on their book value: that is, a publicly traded firm's *market capitalization* ("market cap" equals share price times number of outstanding shares) was often not much greater than its "book value" (the value of all its tangible assets, like "plant and equipment"), with only a few firms demonstrating higher valuations because of growing sales, brand value, strategic relationships or other factors not found on a firm's balance sheet. Tangible assets made up over 83% of US firm's valuations in the 1970s. This is no longer true. Currently, about 90% of the value of the "S&P500" (the 500 largest publicly traded companies in the US) now comprises intangible assets. How did this happen? How do we measure this value? How can firms exploit their opportunities to grow this value? How can this be sustained? How can it be protected and secured?

IC collectively refers to all the factors that determine an organization's value. It is the individual and collective knowledge and skills, applied experience and expertise, enterprise processes, technologies, customer relationships and inter-organizational relationships which confer value to a firm often not measured through traditional accounting methods. It comprises human capital (of employees), organizational (or collective) capital and relationship capital. IC also stands for future earning capabilities (Edvinsson, 2013).

IC is often the primary driver of an organization's success. It starts with the creativity and innovation created by individuals and workgroups who develop knowledge artifacts such as intellectual property, disruptive technologies, brands and franchises, and innovative internal processes, and successful external partnerships and alliances. Firms and not-for-profit organizations who harness and leverage these information and knowledge artifacts can increase efficiencies and effectiveness, can establish strategic sources of competitive advantage and can ultimately create IC assets, not shown on a balance sheet, which can result in differences between a company's market value and its book value. Such firms (and others) often transform this IC into significant growth and disruption of market sectors.

These key knowledge artifacts, increasingly the source of a firm's value, must be created and exploited. Firms seek to hire personnel to "think outside the box" and then create formal and informal environments that foster innovation. Firms must create an organizational culture that promotes the creation of such knowledge artifacts and then ensures it can blossom.

These key information and knowledge assets must also be secured and protected, a deceptively challenging task in a hyper-connected and complex world. Traditional firm assets were physical – it was impossible to steal a factory! But in the present day, it is imperative that organizations pursue strategies and methods that protect their digital information assets from internal and external threats. Employee mistakes, malicious insider activities and external hackers are amongst the human threat vectors of concern, as are a range of technical threats to the security of IC.



IC is now recognized as a key instrument for defining the value creation of a company and its business performance. But research within the domain of IC can be conducted at the individual (micro) level, the group (meso) level, and the organizational (macro) level, and is even the focus of industry level and country-level research. Research topics range from those related to creativity and innovation to group processes to organizational structures to valuation methods and more. The *JIC* broadly welcomes rigorous research from a variety of research traditions that add to our knowledge about IC and to our understanding of the creation, management, valuation and use of IC and also to know how to “navigate the knowledge economy (Edvinsson, 2002)”.

History

Edvinsson (2000) began discussing and prototyping the perspectives on intangible assets and IC more than 20 years ago. See IC 21 global developments during 21 years of IC practice and theory, described by Dumay and Edvinsson (2013). Petty and Guthrie (2000) emphasized the role of IC at the business level in the knowledge economy. One key component of this scientific inquiry has been the study of the role of knowledge management (Mouritsen *et al.*, 2002). Overall, knowledge (in all its forms) and IC were examined as relevant intangible assets for contributing to a company’s productivity growth. Indeed, the concept of IC was introduced in 1994 along with the knowledge management topic (Serenko *et al.*, 2010) when practitioners were debating about IC more than scholars.

McElroy (2002) suggested that companies are becoming more innovative and IC cannot be investigated as only an internal asset but should be analysed as the collective ability of a company to develop new ideas. He introduced the notion of “social innovation capital” (see also Bueno *et al.*, 2004). This has resulted in several studies on IC and innovation (Cuganesan, 2005; Bontis *et al.*, 2009; Inkinen, 2015; Duodu and Rowlinson, 2019), on IC in emerging countries (Jardon and Martos, 2012; Daou *et al.*, 2014), on IC and virtual environment (Zhou and Fink, 2003; Berraies, 2019), on IC and higher education (Pedro *et al.*, 2019; Tjahjadi *et al.*, 2019), and other related topics.

Clearly, the blossoming of IC research has demonstrated a trend from distinguishes IC as strictly an accounting subject towards the creation and maintenance of IC, which aligns with the management field, as well as explorations of information and communication technologies (ICTs) that create IC. The largest companies in the world (e.g. Apple) are valued primarily for their intangible assets. This evolution of IC research from the pure measurement consideration towards the study of the organizational environment as a driver for sustainability and co-value creation is ongoing. As the interest in IC research is growing, so are the number of topics within the research domain. The study of IC has now ventured into new areas, such as IC and Corporate Environmentalism; Knowledge Management, IC and Entrepreneurial Initiatives; IC in Healthcare; the Security of IC and the IC of nations.

Scholars are increasingly expanding their interests in topics such as growing IC through digital transformation, strategic alignments, collaborative teamwork, innovative ICTs, knowledge systems and other sources of IC. Recent publications and expansion of subjects, is done by amongst others (see Mercier-Laurent and Edvinsson, 2021; Matos and Edvinsson, 2020; Ordóñez and Edvinsson, 2020). We believe the future of IC research is bright and also challenging.

We offer this special issue and we trust that you will value these papers. The special issue comprises 10 articles covering a range of research topics. Lin and Edvinsson (2020) discuss the evolution and transformation of the *JIC* over the past 20 years. Based on 700 *JIC* papers, we found that the field of IC has evolved from the social construction of IC knowledge to IC knowledge diffusion and inheritance. An IC ecosystem from various academic disciplines covering organizational, city, regional and national levels was proposed. We also pointed out

that theoretical development, IC research methodology, national IC and data collection method required IC researchers' special attention.

In the same line, [Dabic et al. \(2020\)](#) bring us to the wide overview of the topic of IC over the last 20 years with the article entitled "Two decades of the Journal of Intellectual Capital: a bibliometric overview and an agenda for future research". By a bibliometric analysis 700 articles and editorial notes were examined to show what has been studied in the last 20 years. As emerged the IC topic is moved from the mere concept of intangible assets, an accounting perspective to a managerial outlook that has been promoting new research avenues on (1) knowledge management (KM), (2) ICTs and (3) emerging ICT-enabled business structures and capabilities, along with cybersecurity and business research methods. Alongside, the intertwining of IC and KM introduces another article on "Intellectual capital in Society 5.0 by the lens of the knowledge creation theory" by [Konno and Schillaci \(2021\)](#). This research offers new, interesting insights on such intertwining with a lens of knowledge creation theory. In turn, it moves the attention to the new societal evolution named Society 5.0 where the human capital is the key pillar of business growth and society well-being.

The crucial role of knowledge is also supported by [Pflugfelder et al. \(2021\)](#) and by [Crupi et al. \(2020\)](#). The first one talks about the IC management based on the ISO 30401 Knowledge Management Systems Standard, offering a broad literature review on intellectual capital theory and knowledge management theory. The study defines new guidelines on how operationalize and implement such standards, taking in consideration market and organizational features. Whereas, [Crupi et al. \(2020\)](#) explore the relationship between IC and entrepreneurship, investigating the theoretical pillars on which prior literature has grown and which areas of research should be addressed in future studies. Through a quantitative and qualitative bibliometric analysis, the study offers an eye-bird view on the patterns followed by the literature, which started from the beginning of 2000 to recognize the crucial role of knowledge for developing firms' competitive advantage. It also suggests to future study to investigate the nature of the relationships between the different elements that constitute the IC and their impact on firms' performance.

By enforcing the new managerial direction of the journal, there is also the study of [Will et al. \(2021\)](#). The authors argue IC management with a focus of German country from the last 20 years. Four case studies are analysed operating in different industries such as service, research, steel and mill. As emerged the method for measuring and reporting IC (see Wissensbilanz – made in Germany) is very robust, managing and strategically developing IC is extremely relevant and it is based on life cycle and maturity of organizations. Such development and management is enforced by a strong commitment and leadership. In a nutshell, this study stresses out the new journal direction towards the management field.

Other authors have investigated IC in the new digital transformation era. For instance, [Orlando et al. \(2020\)](#) propose a new research entitled "Are digital technologies killing future innovation? The curvilinear relationship between digital technologies and firm's intellectual property". The study empirically tests a conceptual model that allows to assess the existence of an inverse *U*-shaped relationship between digital technologies and IC and, thus, to disclose the negative latent effect of digitization on IC. The study findings suggest a curvilinear relationship amongst digital technologies, digital skills of human capital and intellectual property, by revealing that digital skills are fundamental only when employees have to manage critical, hard and ambitious tasks; otherwise, they seem to not affect intellectual property and the development of new knowledge. In this sense, the article highlights the importance of digital technologies for firms' intellectual activities and innovation processes and the conventional wisdom for what the digital transformation has positively affected both business and society.

[Chierici et al. \(2020\)](#) contribute to the IC literature, analysing small innovative enterprises (SIEs) to understand of how digital collaboration and digital tools could be useful to enhance

their capability to generate IC and, in particular, social innovation capital. In turn, managers can identify new solutions to support innovation processes and strength competitiveness. Additionally, [Martínez-Martínez et al. \(2020\)](#) brings the attention of the IC research and practice communities to the value of IC in hotels' efforts to resolve or mitigate environmental problems over time. The authors examined the relevance of pro-environmental behavioural intention capital as a component of the overall structural capital of hotels. A key finding of this research was the fact that environmental organizational learning has the capability to create structural capital in hotels over time. Hence, IC is considered one of the most important drivers of value creation and capture for organizations. Nevertheless, the literature on IC and business model, which describes how a firm creates and captures value, is fragmented and has used many different theoretical frameworks. This underlines the need to provide a comprehensive and detailed picture of how these two topics (IC and business model) have been addressed in the literature, what are their interconnections and what are the possible future lines of research. In this context, [Baima et al. \(2020\)](#) envisage new research avenues focussing on IC and business models by a systematic literature review. The authors reveal that most of the previous works are focussed on value creation and value capture, mainly investigating the relationship between IC and firms' performance (e.g. economic, financial and organizational), while less research has been conducted on holistically understand how firms can use the various IC assets to innovate their products and services for existing and new markets, targets or networks, leveraging novel forms of value proposition.

We trust these articles will educate, inform and inspire you, and we hope you visit the journal in the future to see the exciting research to be published in forthcoming issues.

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Further reading

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