Critical Perspectives on Accounting 70 (2020) 102185

Contents lists available at ScienceDirect

Critical Perspectives on Accounting

journal homepage: www.elsevier.com/locate/cpa

Guest Editorial

Being critical about intellectual capital accounting in 2020: An overview

1. Introduction

In 2020, intellectual capital (IC) accounting research has advanced beyond its original strategic focus on measuring, managing, and reporting IC. In our introduction, we define IC as the collection of intangible resources, knowledge, experience, and intellectual property an organisation, community, country or society has and uses to create economic, utility, social and environmental value (Dumay, 2016). Our understanding of how IC impacts and is impacted by, knowledge-intensive institutions and societies in complicated and convoluted ways today stands in sharp contrast to that developed in Mouritsen and Roslender's (2009) *Critical Perspectives on Accounting* (CPA) special issue on "Critical Intellectual Capital". That CPA special issue focused on organizational reporting practices and was concerned with calculation, numbering, quantification, and measurements. But IC research has shifted – now the focus is on understanding IC from multiple perspectives: internal, regional, national, environmental, and societal, and through different stages (Dumay, Guthrie, & Rooney, 2018). This special issue builds upon Mouritsen and Roslender's (2009) call for a more critical perspective on how organizations use IC, not just account for it.

Topics that fall under IC research examining how organizations use IC include non-profit organizations (Kong, 2010), IC in practice (Dumay, 2013), innovation (Lerro, Antonio Lerro, Linzalone, & Schiuma, 2014), sustainability (Matos & Vairinhos, 2017), education (Secundo, Lombardi, & Dumay, 2018), and innovations in IC disclosure (Lombardi & Dumay, 2017). These topics are multi-faceted and advance research beyond just an organizational, shareholder and corporate management perspective. IC researchers can now investigate critical non-financial issues that are relevant to a variety of stakeholders for both internal management purposes and external accountability. However, a more critical shift awaits, which is to critically evaluate and understand how our choices, as they relate to the measuring, managing, reporting and using IC, affect the way we organise and value inter-connected communities, such as cities, or groups of stakeholders (Dumay et al., 2018).

In presenting this special issue we first return to its roots in the early 1990s when measuring, managing, and reporting IC was just emerging. We explore this time to ground the reader into what IC is from a critical accounting perspective, and to outline how IC research and practice has developed within our discipline over several stages. We do this because this special issue critically examines practice, especially as it pertains to measuring, managing, and reporting of IC.

However, our discussion and thinking move beyond just seeking answers to the straightforward question of whether a more thoroughly critical perspective on IC reporting has developed in the last decade? The articles in this special issue show that a critical perspective has developed, but also finds that the corporate reporting landscape concerning wealth creation has changed significantly with the introduction of integrated reporting (International Integrated Reporting Council (IIRC), 2013), and the EU Directive on non-financial and diversity reporting (European Union, 2014). The landscape has broadened beyond wealth creation for companies, as evidenced by the UN Sustainable Development Goals (Bebbington & Unerman, 2018). We ask, how can accounting for IC improve peoples' lives beyond making them wealthier? We seek to break down organizational boundaries and use the experiences and lessons of the past to think about how we can use our people, relationships, systems, and physical and natural capitals to build a better society for everyone, not just stock market capitalists. Only then can we see how the journey to account for IC is worthwhile.

https://doi.org/10.1016/j.cpa.2020.102185

2. Measuring, managing, and reporting IC from the 1990s to 2000s

The term "intellectual capital", as we use it in contemporary times, has its origins in the 1990s in the seminal work of Thomas Stewart, a then journalist for US business magazine *Forbes*. In his first article about IC, Stewart (1991) identifies IC as the "brainpower" of a company. In a later article, Stewart and Losee (1994, p. 68) identify "how business pioneers are abandoning the old system of accounting, which focused on the cost of material and labor, in favour of measuring intellectual capital—the chief ingredient of the economy of the 1990s and beyond". Stewart (1997, p. x) also defines IC as:

> the sum of everything everybody in a company knows that gives it a competitive edge [...] Intellectual Capital is intellectual material, knowledge, experience, intellectual property, information [...] that can be put to use to create wealth.

The value of IC can show up as the difference between the economic value (market valuations) and book value (net assets) of companies. However, at the beginning of the 1990s, financial accounting standard setters were not keen on the recording of economic value because traditional financial accounting conservatism did not permit accounting for future value (Barker, 2015). Even today, in spite of a partial move to fair value accounting (Power, 2010), financial accounting standards refrain from fully endorsing the fair value principle. No wonder, then, that in the 1990s these pioneers were abandoning the old system of financial accounting. In doing so, however they encountered the inherent "difficulty in accounting for intellectual capital" (Stewart & Losee, 1994, p. 68). In the 1990s that difficulty surfaced as national economies began to drift from industrial to service economies, in what we now commonly refer to as the "knowledge economy" (Mouritsen, Larsen, & Bukh, 2005; Neef, 1998).

Skandia Group, Dow Chemical, and Hughes Aircraft are examples of the companies that began to measure and manage IC (Stewart & Losee, 1994), with Skandia (1994) being the first company to issue an IC report as a supplement to its annual report. Skandia (1994, p. 3) recognized the accounting problem from the onset, outlining it in their first IC statement attempting to *visualize* IC:

> Commercial enterprises have always been valued according to their financial assets and sales, their real estate holdings, or other tangible assets. These views of the industrial age dominate our perception of businesses to this day – even though the underlying reality began changing decades ago. Today it is the service sector that stands for dynamism and innovative capacity – where jobs are being created and investment is in high demand. The service sector has few visible assets, however. What price does one assign to creativity, service standards or unique computer systems? Auditors, analysts and accounting people have long lacked instruments and generally accepted norms for accurately valuating service companies and their "intellectual capital."

In redefining their accounting and reporting, Skandia (1994, p. 7) developed the Skandia Navigator as an accounting model to include IC. Skandia initially identified and measured IC with ratios using some primary focus areas, being "the Customer focus, the Process focus, the Human focus and the Renewal & Development focus", alongside a Financial focus (Skandia, 1994, p. 7). Table 1 outlines several examples of measures included in Skandia's model for accounting and reporting.

The Skandia Navigator is just one of many models that accounting researchers and practitioners developed in the early 1990s and 2000s, in what Petty and Guthrie (2000, pp. 155-156) identify as first and second stage IC research (see Fig. 1 for all five stages):

> First-stage efforts have typically focused on consciousness-raising activities that strive to communicate the importance of recognising and understanding the potential for intellectual capital in creating and managing a sustainable competitive advantage. The aim of stage one was to render the invisible visible by creating a discourse that all could engage in.

Whereas:

> second stage of development, [is] one that establishes research into intellectual capital as a legitimate undertaking and gathers robust evidence in support of its further development.

Thus, by the beginning of the 2000s the development of frameworks by accounting researchers for measuring, managing, and reporting IC was well underway, and continuing (see Dumay & Roslender, 2013; Sveiby, 2010).

At the beginning of the 2000s, various governments became interested in the economic impacts of measuring, managing, and reporting IC. For example, the OECD hosted a comprehensive conference on IC, entitled the *International Symposium on Measuring and Reporting of Intellectual Capital: Experiences, Issues and Prospects* (Guthrie, Petty, Ferrier, & Wells, 1999). This conference brought together policymakers, academics, and practitioners to explore IC and its potential.

Governments and policymakers also supported developing IC frameworks for measuring, managing, and reporting IC at this time. Some prominent examples are the Danish IC statement guideline (Mouritsen et al., 2003), the MERITUM (2002) guideline sponsored by the European Union, and guidelines in Japan (Johanson, Koga, Skoog, & Henningsson, 2006) and Hong Kong (Intellectual Property Department, 2009). While there are several more examples, the above demonstrates that during the early 2000s, measuring, managing, and reporting IC became a focus for academics, practitioners, policymakers, and governments.

Table 1
Examples of measures included in the Skandia Navigator.

FINANCIAL FOCUS 1994		CUSTOMER FOCUS 1994	
Fund assets (MSEK)	3666	Market share	2.3%
Fund assets/employee (MSEK)	228	Number of accounts	14,524
Income/employee (SEK 000)	50	Customers lost	1.1%
Income/managed assets	0.027%	Fund assets, excl. Skandia Link, per customer (SEK 000)	78
		Satisfied customer index (scale 1–5)	3.95
PROCESS FOCUS 1994		RENEWAL & DEVELOPMENT FOCUS 1994	
Adm. expense/managed assets	0.455	Competence development expense/employee (SEK 000)	7
Adm. expense/total revenues	75%	Satisfied employee index (scale 1–5)	3.08
Cost for admin error/management revenues	1.5%	Marketing expense/managed assets	0.12%
Average volatility, shares	0%	Marketing expense/customer (SEK)	308
Average volatility, interest rates	0%		
Total yield compared with index	+3.2%		
HUMAN FOCUS	1994		
Number of employees	143		
Employee turnover	5%		
Average years of service with company	10.8		

Source: Skandia (1994, pp. 8–9).

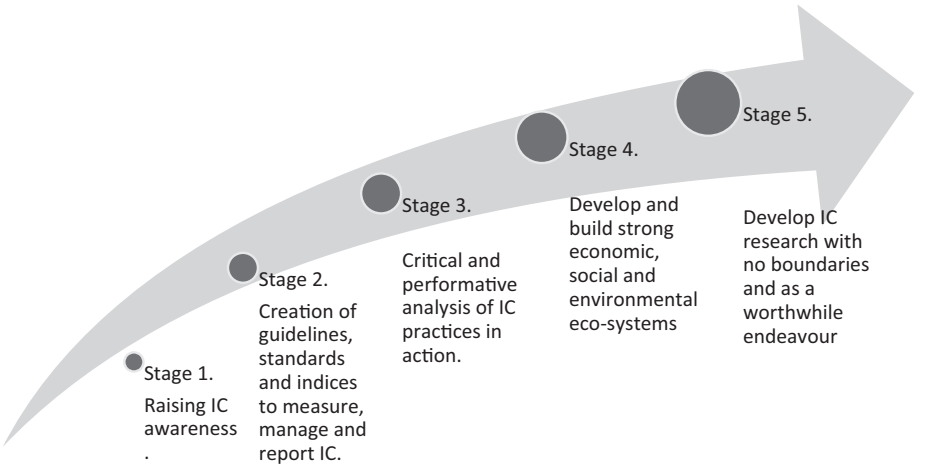

Fig. 1. The five stages of IC research.

As part of the scholarly discourse about IC, several scholars began to question and critique IC from an accounting perspective. As Roslender and Fincham (2001, p. 383) outline, there was a "larger corpus of popular and practitioner-oriented literature dating back to the mid-1990s, but much of this has now become repetitive while simultaneously displaying a tendency to incorporate insights from other problematics in an unsatisfactory manner". A critical rethinking of the IC literature is also evident in two special issues in the *Journal of Intellectual Capital* by Chatzkel (2004) – "IC at the Crossroads" – and O'Donnell, Henriksen, and Voelpel (2006) – "Becoming Critical About Intellectual Capital". Additionally, Sveiby (2007), a researcher and practitioner, was also critical of measuring intangibles as companies were using them for management control and public relations purposes, rather than organizational learning. Thus, while IC was conceived to understand value creation in the knowledge and service economies, by the mid-2000s cracks were starting to appear in its value creation narrative.

As knowledge is commonly understood as a key factor for organizations, regions, and nations, IC measurement gained in importance. During the firsttwo decades, the IC school of thought produced numerous frameworks and models for measuring and capturing the intangible bases of value creation, which still occupy a well-established position in academia. However, we argue that something important might have been lost along the way. In our rush to account for IC, we have neglected to thoroughly understand knowledge as the basis for human and organizational productive behaviour. We argue that if measuring IC is to remain relevant, we should revisit the fundamental question, as argued by Guthrie, Parker, Dumay, and Milne (2019): what is knowledge?

It was in the mid-2000s that Fincham, Mouritsen, and Roslender (2005) issued their call for papers for a special issue in this journal. In the call, Fincham et al. (2005, p. 351) recognize that:

> In the case of accounting much of the attention has been focused on measuring intellectual capital and reporting on it in financial statements—the principal emphasis being to ensure this key source of value creation can be managed to the continuing benefit of capital.

However, they also argue that IC had escaped the attention of critical scholarship and research, and there was the danger that in practice, "labour [people] might once again find itself subordinate to capital". In other words, IC might be just another tool to create more wealth for the wealthy.

The resulting Mouritsen and Roslender (2009, p. 802) *CPA* special issue on "Critical Intellectual Capital", raised issues about the ethics of organizational reporting practices and "concern with calculation, numbering, quantification, and measurement". In the articles, a central theme is how numbers can represent IC and how these numbers can represent knowledge, which can be a problem because "representation of knowledge has important political, ethical, social and organisational implications" (ibid). Thus, Mouritsen and Roslender (2009, p. 803) conclude:

> the vast majority of papers in the intellectual capital field are focused on reporting how organisations struggle with ***accounting*** for, i.e. measuring and reporting, intellectual capital. To a significant extent, this work is unquestioning of the practices themselves, as well as the thinking that underpins them. Perhaps intellectual capital accounting has become part of the mainstream, if only in a small way. In our view, the papers collected in this issue demonstrate that the intellectual capital topic exhibits many dimensions that will benefit from a more thoroughly critical perspective, something which, to date, has not featured widely in the literature.

Shortly after the Mouritsen and Roslender (2009, p. 802) *CPA* special issue, Guthrie, Ricceri, and Dumay (2012, p. 69) examined a decade of IC research and "argue a third stage of IC research is emerging based on a critical and performative analysis of IC practices in action". They find that "ICAR [intellectual capital accounting research] has moved from what Petty and Guthrie (2000) described as stage-one and stage-two research, establishing and developing ICAR as a field and legitimizing ICA [intellectual capital accounting] as an area of multi-disciplinary and multi-focused research" (Guthrie et al., 2012, p. 69). It was this discovery and subsequent realization that prompted the critical perspective identifying the "practice turn" in IC research (Guthrie & Dumay, 2015, p. 260). Subsequently, Dumay and Garanina (2013, p. 21) reviewed the emerging third stage to discover an additional fourth stage based on "a longitudinal focus of how IC is utilized to navigate the knowledge created by countries, cities and communities and advocates how knowledge can be widely developed thus switching from a managerial to an ecosystem focus". However, the fourth stage of IC research continues to recognize IC within traditional organizational boundaries.

Dumay et al. (2018, p. 34) herald the fifth stage of IC research, which changes the premise of the question from "What is IC worth to investors, customers, society and the environment?" to "Is managing IC a worthwhile endeavour?". As Dumay et al. (2018) outline, accounting researchers interested in IC should tackle broader social and environmental issues beyond managing organizations. This critical approach to accounting for IC has the potential to move beyond managerialist arguments for improved accounts of the value of IC, thereby introducing important questions about its wider societal purpose.

When the fourth stage of IC research emerged in the mid-2000s, we were still looking at the organization as a unit of analysis and how it interacts with its ecosystem. However, IC should be the life-support of an ecosystem comprising multitudes of organizations, not feeding off its environment to survive. The great potential of fifth stage IC is to understand how human, social, relational, cultural and natural capital interact when combined with knowledge, experience, and intellectual property so that IC can be used to create economic, utility, social, and environmental value. However, until researchers grasp IC as a crucial ecosystem element, we are doomed to repeating the mistakes of the past. Continuing to focus IC research in organizations is akin to playing the fiddle while Rome burns.

3. Our CPA call for papers

In building on Mouritsen and Roslender (2009, p. 803) conclusions, in this special issue of *CPA*, we asked for contributions critically examining the practice of measuring, managing, and reporting IC (IC practice). Importantly, we specifically asked whether society benefits from this IC practice. As highlighted in the 2009 *CPA* IC special issue, we must consider the effects of IC accounting as a representation of knowledge and human capital. For example, Gowthorpe (2009) notes that measuring IC may be another way to measure and bully people in organizations. Thus, if IC numbers are merely for measuring and controlling, they have no societal benefit (Sveiby, 2010).

We argue that an explicitly critical perspective has been developing over the past decade since the 2009 *CPA* special issue, especially in exploring the effects of IC practices. Notably, since then, IC research within accounting has embarked on a critical pathway, identified by Guthrie et al. (2012, p. 69) as third-stage IC research – that is, research "based on a critical and performative analysis of IC practices in action". Third-stage IC research has inspired researchers to critically investigate how companies use IC to create wealth, rather than continuing to advocate IC as a legitimate idea. Guthrie and Dumay (2015, p. 260) call this change the "practice turn" in IC research because it seeks to understand the intended and unintended effects of using IC accounting to manage companies. Thus, the practice turn involves critical research

that attempts to "look under the rug" of our accounts of IC, as it is both accounted for and used in practice (see Gendron, 2018, p. 7).

When looking under the rug of IC practice, we find a decline in IC reporting among listed companies. Dumay (2016, p. 174) describes his insights into IC reporting in his presentation at a conference in 2012 (see Fig. 2):

> I declared IC reporting dead and flashed up on the screen a tombstone with the epitaph "Intellectual Capital Reporting: 1994–2012". The year 1994 is the year Leif Edvinsson gave birth to IC reporting at Skandia and I chose 2012 to signify the death of reporting, at least from a listed company perspective. While there may be one or two IC reports out there, I had not seen one for a long time. Certainly, there is not the plethora of reports as envisaged by the founding fathers or – as Leif Edvinsson now describes himself – grandfather of IC.
> The last listed company report that even resembles an IC report or statement to my knowledge is published by INFOSYS (2011), which includes an economic value-added statement, alongside a balance sheet including intangible assets and an intangible assets score sheet. The statements are not in the annual report, but rather in a document entitled 30 years of Infosys: additional information. So, there are now more academics interested in IC reporting than listed companies actually reporting IC.

The trend not to report IC externally is highlighted by Nielsen, Roslender, and Schaper (2017), who investigate the reporting practices of organizations participating in the Danish IC statement project, finding that none continue to issue an IC statement. Instead, several organizations argue that IC practice has "benefits for the internal management of the companies, as well as for human capital (employees)" rather than for reporting and control (Nielsen et al., 2017).

Despite the demise of external IC reporting, we have also witnessed a resurgence in interest in IC and its associated capitals as part of the IIRC's campaign to promote the <IR> Framework (Dumay, 2016; IIRC, 2013, p. 2). Also, the European Union (2014) Directive on reporting non-financial and diversity information (2014/95/EU) prompts more IC disclosures (Dumay, La Torre, & Farneti, 2019). Thus, there is some evidence that companies will be disclosing more IC related information, but not as separate IC reports.

Reporting innovations such as <IR>, being a different form of accounting disclosure, may suffer a similar fate to earlier attempts to report on IC (Dumay, Bernardi, Guthrie, & Demartini, 2016). For example, Milne and Gray (2013, p. 20) argue that the "IIRC's discussion paper, *Towards Integrated Reporting,* is a masterpiece of obfuscation and avoidance of any recognition of the prior 40 years of research and experimentation". Similarly, Dumay (2016, p. 177) outlines that the:

> IIRC's rhetoric ignores lessons learned from early IC research, where companies participating in the Danish IC Guidelines project emphatically stated that 'attaining bank loans' and 'attracting investors' were low priorities when it came to reporting IC.

Fig. 2. Intellectual Capital Reporting: RIP.

Instead, these companies gave internal and external reasons for reporting on IC, such as creating and showing innovation, along with attracting and retaining employees (Mouritsen, Larsen, & Bukh, 2001). If the IIRC follows the same arguments, then <IR> may already be doomed to fail (Flower, 2015; La Torre, Dumay, Rea, & Abhayawansa, 2020).

In this special issue of *CPA*, we gather articles that critically examine IC and how organizations both account for it and utilise these accounts in practice, paying particular attention to the implications these accounts have on the broader social and environmental ecosystems (Dumay & Garanina, 2013). These articles take diverse theoretical and methodological perspectives and come from a variety of country and regional settings. We outline the contributions of the articles in the next section.

4. Contributions

The three articles that make up this *CPA* special issue highlight the role that accounts of IC might have, beyond the norms of measuring, managing, and reporting. The articles examine IC practices from several critical perspectives to encourage a broader discussion about the role accounts of IC might play in our responses to the social and environmental challenges of our time. In keeping with the aims of *CPA*, the papers that make up this special issue consider the broader societal implications of our current accounts of IC, and the potential that new forms of accounting for IC might have in the construction of more equitable and less exploitative futures.

The article by (de Volliers and Sharma, 2020) adopts the critical management framework developed by Alvesson and Deetz (2000) to engage in a critical reflection on some well-established forms of integrated reporting. They examine how organizations report IC using several environmental, social and governance (ESG) frameworks and conclude that <IR> is unlikely to subsume traditional financial statement reporting, nor can provide information reported in Global Reporting Initiative (GRI) reports. Further, while recognizing the importance of IC to <IR> and the GRI, they envisage a space for IC reporting that departs from "the disclosure of traditional financial statements" ((de Volliers and Sharma, 2020)) and the professional associations and standard-setting bodies and institutions that support them.

The paper by (Giuliani and Skoog, 2020) draws our attention to the temporal dimensions of IC within management accounting processes used by companies to make knowledge visible. They ask the following research question: how is time understood and acted upon in connection to different types of management accounting processes within organizations? In other words, what role does time play in IC-related management accounting practices?

Like de Villiers and Sharma, the authors use the Alvesson and Deetz (2000) framework to critically examine a case study of an Italian component manufacturer operating in the automobile and household appliance industries. Consistent with the notion of a knowledge-oriented value creation process, the subsequent analysis identifies the effect of time-lags on performance as the outcome of both individual and collective sensemaking processes (Giuliani & Skoog, 2020, p. 14).

One of the contributions of this article is to highlight the processes by which IC concepts, methods, and tools evolve to address changing business and societal challenges. As the authors outline, the findings discussed in this article can "improve awareness of the importance of considering the time in accounting systems" (Giuliani & Skoog, 2020). Given the growing importance afforded to IC beyond the boundaries of accounting, as also noted in de Villiers and Sharma's article, this insight applies to other business research disciplines. The two main findings of the paper are that IC can be considered a "temporal boundary object", and to identify the development of time-related indicators for IC. For example, "This indicator changed because we did this 2 years ago", rather than a static indicator (Giuliani & Skoog, 2020). These time-based indicators "make sense of the connections between IC resources and the activities that create them" (ibid). Thus, understanding how and why indicators change over time is more important than the number itself.

The final article by Kianto, Ritala, Vanhala, and Hussinki (2002) complements the previous articles in this issue by arguing that we do not need to discard the existing suite of IC measurement approaches completely. The authors argue that to remain relevant in the face of the increasing knowledge intensity of work, organizing, and value creation, the measurement of intellectual capital (IC) should revisit its foundations and clarify the kind of knowledge IC accounts create within organisations and beyond. In drawing on a knowledge-based perspective, Kianto, Ritala and Hussinki (2020) argue that four critical themes should be better recognized in IC measurement: multi-dimensionality, human agency and action, contextuality, and temporality and dynamics. While arguing for new approaches, the authors also see a place for existing IC management and accounting tools, despite their demonstrable faults and failings.

Collectively, the articles published in this *CPA* special issue on IC provide a series of insights and critiques that build on the challenges articulated in the 2009 *CPA* special issue. They acknowledge the influence of several factors, which include a broad range of stakeholders, political landscapes, and corporate cultures.

5. Conclusions

To conclude this commentary, we reflect on its purpose, which is to explore the research on accounting for IC that has emerged over the past decade and to highlight developments within the field since the publication of the original critical *CPA* special issue on IC (Mouritsen & Roslender, 2009). We believe that our *CPA* special issue shows how the accounting literature on IC has matured, and there are now serious attempts to understand the implications of organisational accounts of IC from a critical perspective.

In developing the field, we note that while much of the contemporary practice agenda of IC researchers has refocused on the <IR> Framework initiative ((de Volliers and Sharma, 2020)), it has also produced research tied to fields such as innovation (Dumay, Rooney, & Marini, 2013), entrepreneurship (Gately & Cunningham, 2014), and management (Chiucchi & Montemari, 2016). Therefore, we argue that any new first and second-stage research should aim to strengthen these ties.

Further, the creation of guidelines, standards, and indices to measure, manage, and report IC will need to be revisited by third-stage researchers to identify the effects of new regulations in practice, new business models, new products and services, new technologies, and new frameworks such as <IR>. As Dumay et al. (2016, p. 168) argue, "during the last two decades listed companies, which are the IIRC's main target for <IR>, have no longer emphasized IC reporting. Thus, there can be lessons learned from research into IC and how <IR> researchers might focus their attention." Without adapting to change, accounting for IC will become irrelevant; just another management fashion relegated to the dustbin of history, as Fincham and Roslender (2003) previously warned.

If the accounting research that focuses on IC is to have any relevance to how we understand organisations, industries, and nations, it will need to develop and adapt. Alongside this process of continuous improvement, there will inevitably be attempts to capture it for managerial purposes, thereby obscuring the broader societal benefits that might materialise from accounts of IC (Guthrie, Dumay, Ricceri, & Nielsen, 2018). But will these attempts just be another way to increase and harvest economic value for capital? Will they only serve to allow the rich and powerful to gain more wealth and power? Will they cause more distrust between the community and influential organisations? As a community of practice and research, we must be at the forefront of answering these questions.

Yet it is only by participating in these debates that IC researchers might have a lasting influence. For example, we must be aware that when multinational businesses take an interest in developing IC (or <IR>) their focus is solely on creating economic value for themselves, almost inevitably at the expense of other capitals (La Torre et al., 2020). It is only by critically examining why organisations, industries, and nations continue to pursue developing IC that we can understand the true motivation hidden behind their rhetoric – or as Dumay and Guthrie (2019, p. 2296) call it, "corporate propaganda".

Evidence of corporate propaganda surrounding the IIRC and its support of <IR> and maintaining the status quo of share market capitalism is easy to find. For example, in a 2018 blog, the then IIRC CEO Richard Howitt argued that for more than half a Millennium – since Franciscan friar Luca Pacioli's publication of the first full account of double-entry bookkeeping in 1494 – business and investment have calculated value by focusing predominantly on only one capital: financial (Howitt & Thurm, 2018). Five hundred years later, John Elkington's 1994 (Elkington, 1997) coining of the term "Triple Bottom Line" brought attention to the environmental and social impacts of business, spurring the emergence of various forms of ESG frameworks and guides, including sustainability reporting, which focused thinking predominantly on the non-financial performance of companies. Even if we accept that financial markets have begun to shift from a narrow focus on corporate profit to an approach that considers the firm's social and environmental impact, the interests of capital remain central. The promotion of capitalism by its supporters, such as Howitt and the backers of IIRC, is simply propaganda (Dumay & Guthrie, 2019, p. 2297).

Moreover, while the current focus of IC research is on understanding the nexus between IC and <IR>, there will no doubt be other reporting frameworks where an IC perspective – not just an IC report – is useful (Schaper, Nielsen, & Roslender, 2017). Already we see organisations and accounting scholars engaging with newer reporting frameworks and initiatives such as the EU Directive (European Union, 2014), and the UN Sustainable Development Goals (Bebbington & Unerman, 2018). In critiquing the relationship between accounts of IC, including their valuation and utilisation, and the reproduction of capitalism, fourth and fifth-stage IC researchers can make real differences.

By no means does this mean that first, second, and third-stage research should or will become obsolete (Dumay et al., 2018). The research outputs from these three stages continue to have the potential to build and alter our knowledge of IC accounting, particularly in terms of raising our awareness of the effect accounts of IC have in the context of a broader network of constituencies, like our cities or networks of stakeholders. All these frameworks require organisations to measure, manage, and report beyond just a financial perspective and they too evolve and change on their journey to legitimacy. On their journey to legitimacy, organisations can contribute to society overall; and not just create wealth. For example, if organisations contribute towards attaining the UN Sustainable Development Goals, they contribute to helping the poorest in society overcome poverty.

Alleviating poverty is a noble and ethical agenda, but poverty alleviation must also come with new forms of self-determination that help protect people from exploitation, alienation and disease. For example, in India, diabetes attributed to changing lifestyles has risen from about 3% in the early 1970s to over 11% by 2017 (Food Tank, 2018). However, our pharmaceutical companies are ready to help, as Mike Doustdar, Executive Vice President, International Operations of Novo Nordisk, one of the world's leading suppliers of insulin for treating diabetes and a prominent supporter of <IR>, outlines (Novo Nordisk, 2018, p. 37):

> Even in the most difficult market conditions, we have relevant products to offer and can be flexible as we strive to ensure patient access. Given the sheer size of the populations who have unmet needs, we have every reason to believe that we can continue to grow and reach millions more wherever we are in the world.

If all we do is lift people out of poverty so that they can become customers of pharmaceutical companies making money from treating lifestyle diseases, have we really improved their lives? Instead, we must use our experiences and lessons learned from the past and think of how we can combine people, relationships, systems, physical and natural capitals to build a better society for everyone. Then maybe the research we have been doing in accounting that considers ways to measure, value, manage, and report on IC might be worthwhile after all.

While we remain hopeful about the benefits of accounting effectively for IC, both within organisations and beyond, to make a significant contribution to society our research community will need to do more to address the challenges of tomorrow. At the time of finalising this introduction, we are in the grips of the COVID-19 crisis. To our minds, the crisis highlights the importance of advancing knowledge that has the potential to contribute to our collective welfare. Despite knowing the risk of global pandemics, and despite the availability of physical, monetary, natural, human, relational, and structural assets to act and contain the COVID-19 outbreak, we are ill-prepared. It seems the lessons learned from past financial crises and past pandemics are being ignored, replaced by a belief that markets can act as an appropriate proxy for the common good. Now, with the realities of this global pandemic just beginning to materialise, it seems that the people that constitute the foundations of all accounts of IC are at risk more than ever.

We hope that the insights gained from this special issue of *CPA* will inspire accounting researchers interested in IC to contribute to the many challenges that face us going forward. Perhaps, more importantly, by highlighting the value of IC to the broader community, beyond the boundaries of the organisation, we could work together to protect the lives and livelihoods of people within our communities.

Acknowledgements

We express our gratitude to CPA Editors Jane Andrew, Christine Cooper, and Yves Gendron for supporting this special issue. We also express our appreciation to all paper contributors to this special issue. Our thanks to the referees who reviewed papers for their constructive, thoughtful and timely comments. Last we thank the anonymous referees of our introduction for their constructive and helpful comments on earlier versions of this work. Your feedback was invaluable and undoubtedly assisted us in developing more profound insights from this special issue.

References

Alvesson, M., & Deetz, S. (2000). *Doing critical management research*. London: Sage.
Barker, R. (2015). Conservatism, prudence and the IASB's conceptual framework. *Accounting and Business Research, 45*, 514–538.
Bebbington, J., & Unerman, J. (2018). Achieving the United Nations sustainable development goals: An enabling role for accounting research. *Accounting, Auditing & Accountability Journal, 31*, 2–24.
Chatzkel, J. (2004). Moving through the crossroads. *Journal of Intellectual Capital, 5*, 337–339.
Chiucchi, M. S., & Montemari, M. (2016). Investigating the "fate" of Intellectual Capital Indicators: A case study. *Journal of Intellectual Capital, 17*, 238–254.
de Villiers, C., & Sharma, U. (2020). A critical reflection on the future of financial, intellectual capital, sustainability and integrated reporting. *Critical Perspectives on Accounting, 70*, 101999.
Dumay, J. (2013). The third stage of IC: Towards a new IC future and beyond. *Journal of Intellectual Capital, 14*, 5–9.
Dumay, J. (2016). A critical reflection on the future of intellectual capital: From reporting to disclosure. *Journal of Intellectual Capital, 17*, 168–184.
Dumay, J., Bernardi, C., Guthrie, J., & Demartini, P. (2016). Integrated reporting: A structured literature review. *Accounting Forum, 40*, 166–185.
Dumay, J., & Garanina, T. (2013). Intellectual capital research: A critical examination of the third stage. *Journal of Intellectual Capital, 14*, 10–25.
Dumay, J., & Guthrie, J. (2019). Reflections on interdisciplinary critical intellectual capital accounting research. *Accounting, Auditing & Accountability Journal, 32*, 2282–2306.
Dumay, J., Guthrie, J., & Rooney, J. (2018). The critical path of intellectual capital. In J. Guthrie, J. Dumay, F. Ricceri, & C. Nielsen (Eds.), *The Routledge companion to intellectual capital: Frontiers of research, practice and knowledge* (pp. 21–39). London: Routledge.
Dumay, J., La Torre, M., & Farneti, F. (2019). Developing trust through stewardship. *Journal of Intellectual Capital, 20*, 11–39.
Dumay, J., Rooney, J., & Marini, L. (2013). An intellectual capital based differentiation theory of innovation practice. *Journal of Intellectual Capital, 14*, 608–633.
Dumay, J., & Roslender, R. (2013). Utilising narrative to improve the relevance of intellectual capital. *Journal of Accounting & Organizational Change, 9*, 248–279.
Elkington (1997). *Cannibals with forks: The triple bottom line of 21st century business*. Oxford: Capstone Publishers.
European Union (2014). DIRECTIVE 2014/95/EU. *Official Journal of the European Union, 214*, 1–9.
Fincham, R., Mouritsen, J., & Roslender, R. (2005). Special issue on intellectual capital: Call for papers. *Critical Perspectives on Accounting, 16*, 351–352.
Fincham, R., & Roslender, R. (2003). Intellectual capital accounting as management fashion: A review and critique. *European Accounting Review, 12*, 781–795.
Flower, J. (2015). The International Integrated Reporting Council: A story of failure. *Critical Perspectives on Accounting, 27*, 1–17.
Food Tank (2018). Diabetes is on the rise in India: Is fast food to blame? Retrieved from: Https://foodtankcom/news/2018/06/diabetes-india-fast-food-nutrition/. (Accessed 17 March 2020.
Gately, C. G., & Cunningham, J. A. (2014). Building intellectual capital in incubated technology firms. *Journal of Intellectual Capital, 15*, 516–536.
Gendron, Y. (2018). On the elusive nature of critical (accounting) research. *Critical Perspectives on Accounting, 50*, 1–12.
Giuliani, M., & Skoog, M. (2020). Making sense of the temporal dimension of intellectual capital: A critical case study. *Critical Perspectives on Accounting, 70*, 101993.
Gowthorpe, C. (2009). Wider still and wider? A critical discussion of intellectual capital recognition, measurement and control in a boundary theoretical context. *Critical Perspectives on Accounting, 20*, 823–834.
Guthrie, J., & Dumay, J. (2015). New frontiers in the use of intellectual capital in the public sector. *Journal of Intellectual Capital, 16*, 258–266.
Guthrie, J., Dumay, J., Ricceri, F., & Nielsen, C. (2018). *The Routledge companion to intellectual capital: Frontiers of research, practice and knowledge*. London: Routledge.
Guthrie, J., Parker, L. D., Dumay, J., & Milne, M. J. (2019). What counts for quality in interdisciplinary accounting research in the next decade: A critical review and reflection. *Accounting, Auditing & Accountability Journal, 32*, 2–25.

Guthrie, J., Petty, R., Ferrier, F., & Wells, R. (1999). There is no accounting for intellectual capital in Australia: A review of annual reporting practices and the internal measurement of intangibles within Australian organisations. *International symposium on measuring and reporting of intellectual capital: Experiences, issues and prospects*. Amsterdam: OECD.
Guthrie, J., Ricceri, F., & Dumay, J. (2012). Reflections and projections: A decade of intellectual capital accounting research. *The British Accounting Review, 44*, 68–92.
Howitt, R., & Thurm, R. (2018). From monocapitalism to multicapitalism: 21st century system value creation. *Sustainability*. London: Thompson Reuters.
Intellectual Property Department (2009). *A guide to intellectual capital management*. Hong Kong SAR: The Government of the Hong Kong Special Administrative Region.
International Integrated Reporting Council (IIRC) (2013). *The International <IR> Framework*. International Integrated Reporting Council London.
Johanson, U., Koga, C., Skoog, M., & Henningsson, J. (2006). The Japanese government's intellectual capital reporting guideline: What are the challenges for firms and capital market agents? *Journal of Intellectual Capital, 7*, 474–491.
Kianto, A., Ritala, P., Vanhala, M., & Hussinki, H. (2020). Reflections on the criteria for the sound measurement of intellectual capital: A knowledge-based perspective. *Critical Perspectives on Accounting, 70*, 102046.
Kong, E. (2010). Intellectual capital and non-profit organizations in the knowledge economy: Editorial and introduction to special issue. *Journal of Intellectual Capital, 11*, 97–106.
La Torre, M., Dumay, J., Rea, M. A., & Abhayawansa, S. (2020). A journey towards a safe harbour: The rhetorical process of the International Integrated Reporting Council. *The British Accounting Review, 52*, 1–22.
Lerro, A., Antonio Lerro, D. R. L. D., Linzalone, R., & Schiuma, G. (2014). Managing intellectual capital dimensions for organizational value creation. *Journal of Intellectual Capital, 15*, 350–361.
Lombardi, R., & Dumay, J. (2017). Exploring corporate disclosure and reporting of intellectual capital (IC): Emerging innovations. *Journal of Intellectual Capital, 18*, 2–8.
Matos, F., & Vairinhos, V. M. (2017). Intellectual capital management as a driver of competitiveness and sustainability. *Journal of Intellectual Capital, 18*, 466–469.
MERITUM (2002). *Guidelines for managing and reporting on intangibles (Intellectual Capital Statements)*. Madrid: Vodafone Foundation.
Milne, M. J., & Gray, R. (2013). W(h)ither ecology? The triple bottom line, the global reporting initiative, and corporate sustainability reporting. *Journal of Business Ethics, 118*, 13–29.
Mouritsen, J., Bukh, P. N., Flagstad, K., Thorbjørnsen, S., Johansen, M. R., Kotnis, S., ... Stakemann, B. (2003). *Intellectual Capital Statements – The new guideline*. Technology and Innovation (DMSTI), Copenhagen: Danish Ministry of Science.
Mouritsen, J., Larsen, H., & Bukh, P. (2005). Dealing with the knowledge economy: Intellectual capital versus the balanced scorecard. *Journal of Intellectual Capital, 6*, 8–27.
Mouritsen, J., Larsen, H. T., & Bukh, P. N. D. (2001). Intellectual capital and the 'capable firm': Narrating, visualising and numbering for managing knowledge. *Accounting, Organizations and Society, 26*, 735–762.
Mouritsen, J., & Roslender, R. (2009). Critical intellectual capital. *Critical Perspectives on Accounting, 20*, 801–803.
Neef, D. (1998). The knowledge economy: An introduction. In D. Neef (Ed.), *The knowledge economy*. Boston, MA: Butterworth-Heinemann.
Nielsen, C., Roslender, R., & Schaper, S. (2017). Explaining the demise of the intellectual capital statement in Denmark. *Accounting, Auditing & Accountability Journal, 30*, 38–64.
Novo Nordisk (2018). *Novo Nordisk annual report 2018*. Denmark: Bagsværd.
O'Donnell, D., Henriksen, L. B., & Voelpel, S. C. (2006). Guest editorial: Becoming critical on intellectual capital. *Journal of Intellectual Capital, 7*, 5–11.
Petty, R., & Guthrie, J. (2000). Intellectual capital literature review: Measurement, reporting and management. *Journal of Intellectual Capital, 1*, 155–176.
Power, M. (2010). Fair value accounting, financial economics and the transformation of reliability. *Accounting and Business Research, 40*(3), 197–210.
Roslender, R., & Fincham, R. (2001). Thinking critically about intellectual capital accounting. *Accounting, Auditing & Accountability Journal, 14*, 383–399.
Schaper, S., Nielsen, C., & Roslender, R. (2017). Moving from irrelevant intellectual capital (IC) reporting to value-relevant IC disclosures: Key learning points from the Danish experience. *Journal of Intellectual Capital, 18*, 81–101.
Secundo, G., Lombardi, R., & Dumay, J. (2018). Intellectual capital in education. *Journal of Intellectual Capital, 19*, 2–9.
Skandia (1994), Visualising Intellectual Capital at Skandia: Supplement to Skandia's 1994 Annual Report, Skandia Insurance Company Ltd., Sveavägen 44, SE-103 50 Stockholm.
Stewart, T. A. (1991). Brainpower. *Fortune, 123*, 44–50.
Stewart, T. A. (1997). *Intellectual capital: The New Wealth of Organisations*. London: Doubleday-Currency.
Stewart, T. A., & Losee, S. (1994). Your company's most valuable asset: Intellectual capital. *Fortune, 130*, 68–73.
Sveiby, K. E. (2007). Methods for measuring intangible assets. Retrieved from: http://www.sveiby.com/portals/0/articles/IntangibleMethods.htm. (Accessed 15/5/07.
Sveiby, K. E. (2010). Methods for measuring intangible assets. Retrieved from: https://www.sveiby.com/files/pdf/intangiblemethods.pdf. (Accessed 25 June 2019).

John Dumay *
Macquarie Business School, Sydney, Australia

University of Bologna, Italy

Nyenrode Business Universiteit, The Netherlands

Aalborg Universitet, Denmark
* Corresponding author at: Macquarie Business School, Sydney, Australia.
E-mail address: john.dumay@mq.edu.au

James Guthrie
Macquarie Business School, Sydney, Australia

Jim Rooney
School of Business, Australian Defence Force Academy, UNSW Canberra, Australia

Available online 27 April 2020