
Editorial: Entrepreneurial development and digital transformation in creative and cultural industries: trends, opportunities and challenges

Editorial

1929

1. Background: state-of-the-arts and current challenges

Entrepreneurial development, knowledge, innovation and digital transformation (DT) are widely and traditionally considered the fundamental driving factors for economic and social growth and wellness in societies (Appio *et al.*, 2021; Elia *et al.*, 2017).

In the previous years, the development and the significant adoption of a different set of new and economically significant digital technologies and related tools have modified both innovation and entrepreneurial dynamics generating multifaceted industrial, managerial and policy implications (Broekhuizen *et al.*, 2021; Hanelt *et al.*, 2020; Nambisan *et al.*, 2017, 2019; Nambisan, 2017; Santarsiero *et al.*, 2021; Vial, 2019).

Accordingly, the notion of DT has indeed largely emerged to synthetically labelled all the effects and the impacts of such technologies on new business models, new products and services, new configurations of supply chains and operations, new forms of customer orientation, a new way of working (Boulton, 2018; Berger *et al.*, 2019; Cennamo *et al.*, 2020; Porter and Heppelmann, 2014, 2015; Raff *et al.*, 2020; Svahn *et al.*, 2017) and, more extensively, to define “*how existing companies may need to transform themselves to succeed in the emerging digital world radically*” (Nambisan *et al.*, 2017, p. 1, citing McAfee and Brynjolfsson, 2017; Rogers, 2016; Venkatraman, 2017).

More specifically, different studies have tried to decline such reflections in more operative terms, focussing on the links between DT and traditional industries (Iansiti and Lakhani, 2019; Venkatraman, 2017), on the role of the DT for the creation of new multisided platforms and knowledge ecosystems (Cozzolino *et al.*, 2018; Elia *et al.*, 2021; Fraser and Ansari, 2020; Nambisan and Baron, 2019; Parker *et al.*, 2017), on the integration of digital and non-digital assets for augmenting product and service performance (Barrett *et al.*, 2015; Hui, 2014), on the change that DT brings to the innovation processes (Lu and Ramamurthy, 2011; Ransbotham *et al.*, 2016; Reibenspiess *et al.*, 2020; Sadera *et al.*, 2016), on the corporate innovation strategies and actions answering digitalisation (Fitzgerald *et al.*, 2014; Svahn *et al.*, 2017) and on many other themes, as summarised in their effective review by Appio *et al.* (2021).

Despite the vast scientific and business media debate, scholarship on digital-driven innovation and entrepreneurship has shown at least three significant limitations. The first one refers to theoretical issues and, in particular, the failure to incorporate comprehensive approaches beyond the information systems streams and to adopt a more interdisciplinary view of management fields (Appio *et al.*, 2021; Nambisan *et al.*, 2019; Nambisan, 2017; Kallinikos *et al.*, 2013; Yoo *et al.*, 2010).

The second limitation is connected to the issue that limited studies have explored what and how the specific characteristics and knowledge expertise at the organisational level may have effects on the adoption of digital technologies and tools, performance improvement and



International Journal of
Entrepreneurial Behavior &
Research
Vol. 28 No. 8, 2022
pp. 1929-1939
© Emerald Publishing Limited
1355-2554
DOI 10.1108/IJEBR-11-2022-008

sustainability, thus confirming that research on the antecedents of the DT is still evolving (Broekhuizen *et al.*, 2021; Hanelt *et al.*, 2020; Vial, 2019). In such a domain, little attention has explicitly been paid to what and how to implement and use effectively digital infrastructures by leveraging the knowledge-based foundations of the company as well as the enablers of the DT at the organisational level (Appio *et al.*, 2021).

The third limitation is referred to the issue that currently, mainly research on the DT of innovation and entrepreneurship has been developed about large companies and organisations and specific industries, such as automotive. In contrast, limited studies have paid attention in a rigorous way to the wide world of the Creative and Cultural Industries (CCIs). In particular, existing research has not developed a more nuanced understanding and addressing of the trends, opportunities, and challenges emerging in terms of entrepreneurial development and DT in CCIs.

This is rather amazing since it appears as not aligned with the great emphasis and attention that both academia and local, national and international policies have recently provided about these industries. Moreover, the fundamental role that CCIs play in the entrepreneurial dynamics and their contribution to economic growth (Rodríguez-Gulias *et al.*, 2018; Zhou *et al.*, 2018) make this topic very relevant for the socio-economic development of territories (Smagina and Lindemanis, 2012).

Consequently, at this critical juncture, this paper aims to stimulate a debate about the development of research capacity to address the above limitations and explicitly identify and analyse the emerging paths and experiences happening in entrepreneurship and DT in the CCIs context.

For this reason, we propose a research agenda by focussing on three broad themes related to entrepreneurial development and DT in CCIs by positioning them around three different levels of analysis, i.e. macro, meso and micro.

We suggest that identifying such themes and related main unanswered research questions and unsolved issues may enhance future research efforts' quality and growth and help support the attempt of interdisciplinary and broader business research to inform entrepreneurial development and digital transformation practices more coherently.

2. Themes in the entrepreneurial development and digital transformation in CCIs

We propose a set of themes useful to serve as the basis for a new research agenda capable of identifying and analysing the emerging trends, opportunities and challenges related to the entrepreneurial development and the DT in CCIs and gaining attention amongst innovation and entrepreneurship scholars. Of course, these themes are by no means the only ones relevant in the context of analysis. Moreover, our aim is not to provide an exhaustive analysis or commentary on these issues. Still, we hope to highlight the relevance of developing a research agenda built on common themes characterising CCIs. After a concise overview of the CCIs, we introduce these themes and analyse some of the research issues.

2.1 Cultural and creative industries (CCIs): an overview

During recent years, CCIs have grown in economic relevance (UNCTAD, 2004) and influence the labour market and the societal quality of life (Smagina and Lindemanis, 2012). They are defined as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property” (DCMS UK, 2001, p. 4) as well as producing “experience goods with considerable creative elements and aim these at the consumer market via mass distribution” (Peltoniemi, 2015, p. 41).

Different scholars (Landoni *et al.*, 2020; Coblence and Sabatier, 2014; Eikhof and Haunschild, 2007) highlight the growing interest in management studies due to their idiosyncratic characteristics, the nature of traded goods and the existence of tensions between artistic orientation and financial balances (Foss and Saebi, 2018; Durand and Jourdan, 2012), extremely unpredictable demand (Caves, 2000), chronic resource constraints and growth issues, a very articulated value chain (De Bruin, 2007; Henry, 2007), capabilities and experience of entrepreneurs (Sundbo, 2011).

Accordingly, in recent years, particular attention has been provided to a better understanding of the entrepreneurial dynamics of these industries, often adopting a business model perspective (Schiuma and Lerro, 2017a, b).

In this vein, the challenge of change tends to be emphasised by the current DT. As argued by Landoni *et al.* (2020), the vast set of digital technologies are fostering innovation opportunities (Iansiti and Lakhani, 2014) and reducing the time needed to create and launch new products and solutions (Marion *et al.*, 2015) and digital technologies facilitate pervasive change in business models (Li, 2018; Nambisan, 2017).

2.2 The macro-level: scenario analysis and main challenges of CCIs highlighted by COVID-19

The effects of the COVID-19 pandemic on the overall world economy were unprecedented, and almost all industries have been involved. However, some businesses have been undoubtedly more hit and, amongst them, the CCIs. At the macro-level, the focus is on the scenario analysis and the challenges determined by COVID-19. Unfortunately, as highlighted by Ketchen and Craighead (2020, p. 1331), “*academic research was not adequately prepared to offer firms a full array of insights about how to navigate the pandemic*”.

All this offers opportunities and threats for CCIs – related to the social, economic, political and competitive environment and creative and cultural organisations’ structure and characteristics – to identify and address DT and new entrepreneurial paths effectively.

On the commission of the Wallace Foundation (2020a, b), AEA Consulting recently attempts to delineate possible avenues for the CCIs, proposing four potential future scenarios and related opportunities and challenges. Specifically, it identifies scenarios synthetically labelled as “*Cooperative Living*”, “*New Means of Gathering*”, “*Digital Connection*” and “*Social Disintegration*” and analyses emerging opportunities and challenges across areas such as organisational planning, programming, income generation, audience engagement, workforce and leadership development, physical infrastructure and lobbying and collaboration. Despite the characteristics of each delineated scenario, some common outcomes seem to emerge. Amongst them, particular attention is paid to (1) the increased digital engagement, in terms of proliferation of new creators and platforms focussed on digital production and consumption and development of new business models and regulatory frameworks specialised for the digital sphere and to (2) the decreased government and/or philanthropic support determining a need for innovation in earned income generation digital-enabled as well as the development of channels to support artists and creators directly.

To support this view, it is essential to cite a recent initiative recently conceived in Italy: an ambitious project has been elaborated and developed by the ICT company Cinello in collaboration with the leading museums and galleries in Italy. A USB with micro-chips, a world-recognised patent, an ICT protection on the blockchain, permission of the museum providing absolute value to these digital twins encrypted create authentic digital artworks.

Accordingly, a large set of famous artworks authored by Mantegna, Raffaello, Caravaggio, Tiziano, Botticelli, Leonardo, Canaletto, Michelangelo, just to cite few, have been faithfully reproduced in digital version on display in collaboration with Uffizi in

Florence, *Gallerie dell'Accademia* in Venice, *Pinacoteca di Brera* and *Pinacoteca Ambrosiana* in Milan, *Musei Reali* in Turin, *Museo di Capodimonte* in Naples and many others institutions.

2.3 The meso-level: collaboration between CCIs and traditional businesses

At the meso level, the focus is on how CCIs may revise and structure their products, services and processes, in response to DT. In this sense, characteristics such as new modes of collaboration and integration with traditional businesses and review of the internal and external organisational boundaries represent significant emerging building blocks on how creative and cultural organisations may restructure their dynamic capabilities to embrace DT.

New emerging streams of academic research argue that creativity, design, culture, arts and, more generally, the cross-fertilisation of ideas are increasingly needed in business, science and technology as well as their spread through and across all the above systems and contexts (Adler, 2006, 2010a, b, 2011; Anderson *et al.*, 2011; Darsø, 2004, Hall and Johnson, 2009; Lerro *et al.*, 2016; Savino *et al.*, 2017a).

In this view, Schiuma (2011), Schiuma and Lerro (2017a) and Schiuma and Lerro (eds) (2017b) show more systematically how arts and creativity-based assets and processes have been increasingly recognised as potential catalysts and levers to support organisational change management programmes, to inspire new entrepreneurial behaviours, frame new business models, improve practices and stimulate the innovation capacity of the whole organisation. Accordingly, Santoro *et al.* (2018) highlight how organisations increasingly develop collaborative modes with CCIs to acquire and combine heterogeneous sources of knowledge and how formal and informal relationships with CCIs may affect innovation performance.

Evidence-based on SME and extensive company activities (e.g. Stuart and Podolny, 1996; Benner and Tushman, 2002; Siggelkow and Levinthal, 2003; Messeni Petruzzelli and Savino, 2014, 2015) shows that innovativeness and entrepreneurial dynamism can be enhanced when industry and technology domains are open to a broader range of influences, including interfaces and learning from other types of industry and organisational systems (Santarsiero *et al.*, 2021; Savino *et al.*, 2017b).

There are indirect and direct impacts on management and working practices virtual and internal team processes, leading eventually to improvements in new added-value products and services. With this perspective, organisations and firms operating in the CCIs can act as key partners. Indeed, they can inspire and support entrepreneurs and managers to innovate high-tech products and services, frame new organisational processes and business models, reconsider human resources and draw on new approaches and instruments to tackle emergent business challenges (Pratt and Jeffcutt, 2009; Cannarella and Piccioni, 2011; Peltoniemi, 2015; Schiuma, 2011; Schiuma and Lerro, 2017a, b).

In this vein, training and education spheres are also revisiting their models, trying to define a future of common projects between technique and history, archaeological culture and science, humanities and advanced scientific research on new materials, in particular, addressed to museums and heritage and cultural domain, as witnessed, for example, by the recent agreement signed in Italy by Archeological National Museum based in Taranto, the Polytechnic University of Bari, in Italy and many others worldwide.

2.4 The micro-level: digital transformation and business model innovation

At the micro-level, attention is paid to how DT may impact business model innovation and, consequently, entrepreneurial dynamics. Digital technologies and related tools are transforming the CCIs and fostering the emergence of new entrepreneurial models as well as business models (Al-Debei and Avison, 2010; Gordijn and Akkermans, 2001), although

research till now remains somewhat elusive and poorly understood (Spieth *et al.*, 2014; Visnjic *et al.*, 2016).

Li (2017) effectively examined how digital technologies have facilitated business model innovations in the creative industries. Moreover, it also explores the potential role of the creative industries in stimulating innovation and entrepreneurship across different sectors of the economy. In particular, three broad categories are used to analyse the role of the digital technologies on business model innovation, such as automation, extension and transformation (AET) (Li, 2007), where “*automation refers to cases when a firm uses digital technologies to automate or enhance existing activities and processes [...]. Extension illustrates cases when a firm uses digital technologies to support new business methods, which supplement but do not replace existing activities and processes. Transformation refers to cases when digital technologies are used to enable new ways of conducting business to replace traditional ones*” (Li, 2017, p. 4).

Moreover, at the crossing of ICT and CCIs, new businesses are emerging, moving research attention towards the so-called “*virtual entrepreneurship*” (Chadna and Salimath, 2018). It is characterised by working practices and specialised knowledge and peer-networks, very specific to the online nature and artisanal featuring (Blundell and Smith, 2013; Kuhn and Galloway, 2015), use of technology-based cybermediary platforms promoting crafts (Chadna and Salimath, 2018), low start-up costs and relationships with customers and community created and managed in an atypical fashion (Kuznetsov and Paulos, 2010).

Landoni *et al.* (2020) have recently analysed the business modelling of three highly successful companies operating in the mobile gaming industry, highlighting how the business model innovation in CCIs follows the life-cycle of the organisations and showing reputation, new distribution paradigms, and extension of product portfolios as drivers of business model innovation.

These research considerations seem to be confirmed by real experiences elaborated and developed practically by museums and arts institutions worldwide in response to the COVID-19 pandemic. Most of them have changed both the modes through which artistic and cultural manufactured goods are generated, acquire value and are offered and, above all, the relationship with the passionate people. This is the case of Galleria Borghese in Rome, Rijksmuseum in Amsterdam, Louvre in Paris, Tate Gallery and National Gallery in London and Metropolitan Museum in New York with its *The Met Unframed* project of Tokyo MORI Building Digital Art Museum, to cite a few. They have successfully developed social-based activities, virtual tours, live streaming, new educational programs and augmented reality experiences to let the living of arts in a more immersive way. Particularly relevant is also the experiences of Dorotheum about the art auctions exploiting online platforms.

The pieces of evidence gathered in this short analysis suggest that the broad and different potential prospects of innovation and entrepreneurship across a range of future are unknown.

3. Articles in this special section

This special section has aimed to gather high-quality papers that deepen and enhance our understanding of the impact and potential of the creative and cultural industries on innovation and entrepreneurship. More particularly, papers have shed new light on how cultural and creative activities and the whole industries, more generally, may stimulate innovation in high-technology and other industry contexts. A synergistic portfolio of papers has been selected to illuminate new research opportunities and challenges for technology and innovation management's scholars and practitioners.

More in detail, the research contributions of this special section collect the works of scholars with different backgrounds that are significantly interested and involved in these emerging topics. The contents of each paper are summarised as follows.

The paper “*App-based business models in cultural tourism*” – written by Felicetti *et al.* – aims to identify distinctive characteristics of business models of mobile-app based for cultural tourism and to analyse the current offering of app-based services in this sector.

In their paper “*Digitalisation in the cultural industry: evidence from Italian museums,*” Raimo *et al.* focussed on analysing the level of digitalisation. More in detail, the paper aims to examine the determinants and effects of the digitalisation level of museum organisations and the role played by the Covid-19 pandemic in the adoption of digital technologies. In particular, three different museum organisations operating in the Puglia region (Italy) are examined.

The paper “*Business models for the digital transformation of audiovisual archives*” – written by José Coelho Rodrigues *et al.* – has the objective to contribute to the understanding of how cultural organisations are using digital technologies to redesign their business models and enable sustainable and impactful audiovisual digital archives, detailing alternative configurations for the most relevant components of a digital business model.

The objective of the paper “*A digital business model: An illustrated framework from the cultural heritage business*” – written by Marco Tregua *et al.* – is to offer a comprehensive understanding of how DT affects business models and how firms can operate and compete effectively and successfully in a digital economy.

Finally, the paper “*Digitalisation and collaborative dynamics integrating artistic, technological and co-creative resources: the case of Postmodern Jukebox*” – written by Flavio Enriques and Maribel Suarez – investigates opportunities resulting from the digitalisation and collaborative dynamics within the Creative and Cultural Industry (CCI) context, in particular related to a small enterprise born digital and intensive in the use of social media platforms.

In summary, this special section has helped to untangle and articulate themes and questions for future research in innovation management and technology entrepreneurship. It has analysed multi-disciplinary topics and discussed theoretical and practical evidence to support academics, entrepreneurs and managers to better understand and use new and specific approaches, methods, tools and techniques related to the culture and creative industries to enhance innovation and entrepreneurship dynamics improve business performance.

4. Conclusions and future research avenues

The analysis briefly developed tries to shed new light on different phenomena regarding CCIs, entrepreneurial development and DT and their intersections. Research highlights a missing unified perspective and a general framework capable of summarising theoretical and empirical efforts.

This could be partially related also to the “*conceptual vagueness characterising digital transformation and to the embryonic stage of development of scholarly research into this fascinating topic, which has dramatically practical implications*” (Appio *et al.*, 2021).

Accordingly, much remains to be done in future research. Firstly, at the macro-level, more research is needed to define the institutional, economic and social conditions that can stimulate and enhance entrepreneurial development within the CCIs. In particular, great attention is called to understand better how and to what extent CCIs contribute to creating entrepreneurship, new innovation ecosystems and value creation dynamics in local, national and international spheres and to imagine and identify new opportunities and challenges related to DT in CCIs. This is also related to better framing the specific characteristics and peculiarities of the jeopardised world of the CCIs, avoiding “*one-size-fits-all*” solutions deriving and successfully applied in different industrial contexts.

Second, at the meso-level, a significant theoretical and managerial challenge we face is to identify and capture new and emerging trends in terms of collaboration with traditional

business, internal relationships, of connection with social and public players that are still at a very early stage of development with limited empirical evidence. In this vein, understanding and analysing how DT may support CCIs' organisations in responding to the "new-normality" caused by the COVID-19 pandemic represents a significant area of interest for future research.

Third, given the increasing adoption of new business models, new research is needed to deeply analyse and quantitatively assess whether the renewed modelling supports organisations' financial sustainability, innovation processes, value and quality of products and services and stakeholders orientations and discover new business models yet not fully emerged. Also, declining effectively a knowledge-based perspective related to the adoption of digital technologies in creative and cultural organisations could be a relevant research avenue, both in terms of related learning processes and organisational intellectual capital management.

Of course, considering the multifaceted interconnections amongst the themes and the speed of change of the digital technologies potentially generating entrepreneurial opportunities in CCIs, we have only offered some highlights about issues requiring deep and further research.

Antonio Lerro, Giovanni Schiuma and Francesco Manfredi

References

- Adler, N.J. (2006), "The Arts and Leadership: now that we can do anything, what will we do?", *Academy of Management Learning and Education*, Vol. 5 No. 4, pp. 486-499.
- Adler, N.J. (2010a), "Going beyond the dehydrated language of management: leadership insight", *Journal of Business Strategy*, Vol. 34 No. 4, pp. 90-99.
- Adler, N.J. (2010b), *Leadership Insight*, Routledge, Milton Park.
- Adler, N.J. (2011), "Leading beautifully: the creative economy and beyond", *Journal of Management Inquiry*, Vol. 20 No. 3, pp. 208-221.
- AEA Consulting-Wallace Foundation (2020a), "Navigating uncertain times, overview", available at: <https://www.wallacefoundation.org/>
- AEA Consulting-Wallace Foundation (2020b), "Arts organisations' early response to COVID-19 uncertainty: insights from the field", available at: <https://www.wallacefoundation.org/>
- Al-Debei, M. and Avison, D. (2010), "Developing a unified framework of the business model concept", *European Journal of Information Systems*, Vol. 19, pp. 359-376.
- Anderson, J., Reckhenrich, J. and Kupp, M. (2011), *The Fine Art of Success. How Learning Great Art Can Create Great Business*, John Wiley & Sons, Chichester.
- Appio, F.P., Frattini, F., Messeni Petruzzelli, A. and Neirotti, P. (2021), "Editorial – digital transformation and innovation management: a synthesis of existing research and an agenda for future studies", *Journal of Production Innovation Management*, Vol. 38 No. 1, pp. 4-20.
- Barrett, M., Davidson, E., Prabhu, J. and Vargo, S.L. (2015), "Service innovation in the digital age: key contributions and future directions", *MIS Quarterly*, Vol. 39 No. 1, pp. 155-175.
- Benner, M. and Tushman, M. (2002), "Process management and technological innovation: a longitudinal study of the photography and paint industries", *Administrative Science Quarterly*, Vol. 47, pp. 676-706.
- Berger, E.S.C., von Briel, F., Davidsson, P. and Kuckertz, A. (2019), "Digital or not—the future of entrepreneurship and innovation: introduction to the special issue", *Journal of Business Research*, Vol. 125, pp. 436-442.
- Blundell, R.K. and Smith, D.J. (2013), "Reinventing artisanal knowledge and practice: a critical review of innovation in a craft-based industry", *Prometheus*, Vol. 31 No. 1, pp. 1-19.

- Boulton, C. (2018), *What is Digital Transformation? A Necessary Disruption*, CIO, December 2018, available at: <https://www.cio.com>
- Broekhuizen, T.L.J., Broekhuis, M., Gijsenberg, M.J. and Wieringa, J.E. (2021), "Digital business models: a multi-disciplinary and multi-stakeholder perspective", *Journal of Business Research*, Vol. 122, pp. 847-852.
- Cannarella, C. and Piccioni, V. (2011), "Traditionations: creating innovation from the past and antique techniques for rural areas", *Technovation*, Vol. 31 No. 12, December, pp. 689-699.
- Caves, P. (2000), *Creative Industries: Contracts Between Arts and Commerce*, Harvard University Press, Cambridge, MA.
- Cennamo, C., Dagnino, G.B., Di Minin, A. and Lanzolla, G. (2020), "Managing digital transformation: scope of transformation and modalities of value Co-generation and delivery", *California Management Review*, Vol. 62 No. 4, pp. 5-16.
- Chadna, V. and Salimath, M.S. (2018), "When technology shapes community in the Cultural and Craft Industries: understanding virtual entrepreneurship in online ecosystems", *Technovation*, doi: [10.1016/j.technovation.2018.06.005](https://doi.org/10.1016/j.technovation.2018.06.005).
- Coblence, E. and Sabatier, V. (2014), "Articulating growth and cultural innovation in art museums", *International Studies on Management Organization*, Vol. 44 No. 4, pp. 9-25.
- Cozzolino, A., Verona, G. and Rothaermel, F.T. (2018), "Unpacking the disruption process: new technology, business models, and incumbent adaptation", *Journal of Management Studies*, Vol. 55 No. 7, pp. 1166-1202.
- Darsø, L. (2004), *Artful Creation – Learning-Tales of Arts-In-Business*, Narayana Press, Gylling.
- DCMS UK (2001), "Creative industries mapping".
- De Bruin, A. (2007), "Building the film industry in New Zealand: an entrepreneurship continuum", in Henry, C. (Ed.), *Entrepreneurship in Creative Industries: An International Perspective*, Edward Elgar Publishing, Northampton, MA, pp. 87-103.
- Durand, R. and Jourdan, J. (2012), "Jules or Jim: alternative conformity to minority logics", *Academy of Management Journal*, Vol. 55 No. 6, pp. 1295-1315.
- Eikhof, D.R. and Haunschild, A. (2007), "For art's sake! Artistic and economic logics in creative production", *Journal of Organizational Behaviour*, Vol. 28 No. b, pp. 533-538.
- Elia, G., Lerro, A., Passiante, G. and Schiuma, G. (2017), "An Intellectual Capital perspective for Business Model Innovation in technology-intensive industries: empirical evidences from Italian spin-offs", *Knowledge Management Research and Practice*, Vol. 15 No. 2, pp. 155-168.
- Elia, G., Lerro, A. and Schiuma, G. (2021), "Leveraging intellectual capital for business modelling in technology start-ups: an exploratory study", *Knowledge Management Research and Practice*, special issue Knowledge Management Systems in the Digital Age, forthcoming.
- Fitzgerald, M., Kruschwitz, N., Bonnet, D. and Weich, M. (2014), "Embracing digital technology: a new strategic imperative", *MIT Sloan Management Review*, Vol. 55 No. 2, p. 1.
- Foss, N.J. and Saebi, T. (2018), "Business models and business model innovation: between wicked and paradigmatic problems", *Long Range Planning*, Vol. 51, pp. 9-21.
- Fraser, J. and Ansari, S. (2020), "Pluralist perspectives and diverse responses: exploring multiplexed framing in incumbent responses to digital disruption", *Long Range Planning*, Vol. 54 No. 5, doi: [10.1016/j.lrp.2020.102016](https://doi.org/10.1016/j.lrp.2020.102016).
- Gordijn, J. and Akkermans, H. (2001), *Designing and Evaluating E-Business Models*, Intelligent e-Business, pp. 11-17.
- Hall, J.M. and Johnson, M.E. (2009), "When should a process be art, not science?", *Harvard Business Review*, March, pp. 58-65, Reprint R0903D.

-
- Hanelt, A., Bohnsack, R., Marz, D. and Antunes Marante, C. (2020), "A systematic review of the literature on digital transformation: insights and implications for strategy and organizational change", *Journal of Management Studies*, doi: [10.1111/joms.12639](https://doi.org/10.1111/joms.12639).
- Henry, C. (2007), *Entrepreneurship in Creative Industries: An International Perspective*, Edward Elgar Publishing, Cheltenham.
- Hui, G. (2014), "How the internet of things changes business models", *Harvard Business Review*, July 29.
- Iansiti, M. and Lakhani, K.R. (2014), "Digital ubiquity: how connections, sensors, and data are revolutionizing business", *Harvard Business Review*, Vol. 92 No. 11, pp. 90-99.
- Iansiti, M. and Lakhani, K.R. (2019), *Competing in the Age of AI: Strategy and Leadership when Algorithms and Networks Run the World*, Harvard Business Press, Boston, MA.
- Kallinikos, J., Aaltonen, A. and Marton, A. (2013), "The ambivalent ontology of digital artifacts", *MIS Quarterly*, pp. 357-370.
- Ketchen, D.J. Jr and Craighead, C.W. (2020), "Research at the intersection of entrepreneurship, supply chain management, and strategic management: opportunities highlighted by COVID-19", *Journal of Management*, Vol. 46 No. 8, pp. 1330-1341.
- Kuhn, K.M. and Galloway, T.L. (2015), "With a little help from my competitors: peer networking among artisan entrepreneurs", *Entrepreneurship Theory and Practice*, Vol. 39 No. 3, pp. 571-600.
- Kuznetsov, S. and Paulos, E. (2010), "Rise of the expert amateur: DIY projects, communities, and cultures", *Proceedings of the 6th Nordic Conference on Human-Computer Interaction: Extending Boundaries, October 2010*, pp. 295-304, doi: [10.1145/1868914.1868950](https://doi.org/10.1145/1868914.1868950).
- Landoni, P., Dell'era, C., Frattini, F., Messeni Petruzzelli, A., Verganti, R. and Manelli, L. (2020), "Business model innovation in cultural and creative industries: insights from three leading mobile gaming firms", *Technovation*, doi: [10.1016/j.technovation.2019.102084](https://doi.org/10.1016/j.technovation.2019.102084).
- Lerro, A., Elia, G., Schiuma, G. and Passiante, G. (2016), "Dimensions and practices of the collaborative relationships between cultural and creative organisations and business", *International Journal of Management and Enterprise Development*, Vol. 5 Nos 2/3, pp. 209-229.
- Li, F. (2007), *What is e-Business? How the Internet Transforms Organisations*, Blackwell, Oxford.
- Li, F. (2017), "The digital transformation of business models in the creative industries: a holistic framework and emerging trends", *Technovation*, doi: [10.1016/j.technovation.2017.12.004](https://doi.org/10.1016/j.technovation.2017.12.004).
- Li, F. (2018), "The digital transformation of business models in the creative industries: a holistic framework and emerging trends", *Technovation*, pp. 1-10, doi: [10.1016/j.technovation.2017.13.004](https://doi.org/10.1016/j.technovation.2017.13.004).
- Lu, K. and Ramamurthy, K. (2011), "Understanding the link between information technology capability and organizational agility: an empirical examination", *MIS Quarterly*, Vol. 35 No. 1, pp. 931-954.
- Marion, T.J., Meyer, M.H. and Barczak, G. (2015), "The influence of digital design and IT on modular product architecture", *Journal of Product Innovation Management*, Vol. 32 No. 1, pp. 98-110.
- McAfee, A. and Brynjolfsson, E. (2017), *Machine, Platform, Crowd: Harnessing Our Digital Future*, WW Norton & Company.
- Messeni Petruzzelli, A. and Savino, T. (2014), "Search, recombination and innovation: lessons from haute cuisine", *Long Range Planning*, Vol. 47, pp. 224-238.
- Messeni Petruzzelli, A. and Savino, T. (2015), "Reinterpreting tradition to innovate: the case of the Italian haute cuisine", *Industry and Innovation*, Vol. 22, pp. 677-702.
- Nambisan, S. (2017), "Digital entrepreneurship: toward a digital technology perspective of entrepreneurship", *Entrepreneurship Theory and Practice*, Vol. 41 No. 6, pp. 1029-1055.
- Nambisan, S. and Baron, R.A. (2019), "On the costs of digital entrepreneurship: role conflict, stress, and venture performance in digital platform-based ecosystems", *Journal of Business Research*, Vol. 125 No. 1, doi: [10.1016/j.jbusres.2019.06.037](https://doi.org/10.1016/j.jbusres.2019.06.037).

- Nambisan, S., Lyytinen, K., Majchrzak, A. and Song, M. (2017), "Digital innovation management: reinventing innovation management research in a digital world", *MIS Quarterly*, Vol. 41 No. 1, pp. 223-238.
- Nambisan, S., Wright, M. and Feldman, M. (2019), "The digital transformation of innovation and entrepreneurship: progress, challenges and key themes", *Research Policy*, Vol. 48 No. 8, pp. 1037-1073.
- Parker, G., Van Alstyne, M. and Jiang, X. (2017), "Platform ecosystems: how developers invert the firm", *MIS Quarterly*, Vol. 41 No. 1, pp. 255-266.
- Peltoniemi, M. (2015), "Cultural industries: product-market characteristics, management challenges and industry dynamics", *International Journal of Management Review*, Vol. 17 No. 1, pp. 41-68.
- Porter, M.E. and Heppelmann, J.E. (2014), "How smart, connected products are transforming competition", *Harvard Business Review*, Vol. 92 No. 11, pp. 64-88.
- Porter, M.E. and Heppelmann, J.E. (2015), "How smart, connected products are transforming companies", *Harvard Business Review*, Vol. 93 No. 10, pp. 96-114.
- Pratt, A.C. and Jeffcutt, P. (Eds) (2009), *Creativity, Innovation and the Cultural Economy*, Routledge, London.
- Raff, S., Wentzel, D. and Obwegeser, N. (2020), "Smart products: conceptual review, synthesis, and research directions", *Journal of Product Innovation Management*, Vol. 37 No. 5, pp. 379-404.
- Ransbotham, S., Fichman, R.G., Gopal, R. and Gupta, A. (2016), "Ubiquitous IT and digital vulnerabilities", *Information Systems Research*, Vol. 27 No. 4, pp. 834-847.
- Reibenspiess, V., Drechsler, K., Eckhardt, A. and Wagner, H.-T. (2020), "Tapping into the wealth of employees' ideas: design principles for a digital intrapreneurship platform", *Information and Management*, forthcoming.
- Rodriguez-Gulias, M.J., Fernandez-Lopez, S. and Rodeiro-Pazos, D. (2018), "Innovation in cultural and creative industries firms with an academic origin (CCI-USOs): the role of regional context", *Technovation*, doi: [10.1016/j.technovation.2018.06.007](https://doi.org/10.1016/j.technovation.2018.06.007).
- Rogers, D. (2016), *The Digital Transformation Playbook. Rethink Your Business for the Digital Age*, Columbia University Press, New York.
- Santarsiero, F., Lerro, A., Carlucci, D. and Schiuma, G. (2021), "Modelling and managing Innovation Lab as catalyst of digital transformation: theoretical and empirical evidence", *Measuring Business Excellence*, Vol. ahead-of-print No. ahead-of-print, doi: [10.1108/MBE-11-2020-0152](https://doi.org/10.1108/MBE-11-2020-0152).
- Santoro, G., Bresciani, S. and Papa, A. (2018), "Collaborative modes with Cultural and Creative Industries and innovation performance: the moderating role of heterogeneous sources of knowledge and absorptive capacity", *Technovation*, doi: [10.1016/j.technovation.2018.06.003](https://doi.org/10.1016/j.technovation.2018.06.003).
- Savino, T., Messeni Petruzzelli, A. and Albino, V. (2017a), "Teams and Led creators in cultural and creative industries: evidence from the Italian haute cuisine", *Journal of Knowledge Management*, Vol. 21, pp. 607-622.
- Savino, T., Messeni Petruzzelli, A. and Albino, V. (2017b), "Search and recombination process to innovate: a review of the empirical evidence and a research agenda", *International Journal of Management Reviews*, Vol. 19, pp. 54-75.
- Schiuma, G. (2011), *The Value of Arts for Business*, Cambridge University Press, Cambridge.
- Schiuma, G. and Lerro, A. (2017a), "The business model prism: managing and innovating business models of arts and cultural organisations", *Journal of Open Innovation: Technology, Market, and Complexity*, Vol. 3, pp. 3-13.
- Schiuma, G. and Lerro, A. (Eds) (2017b), *Integrating Art and Creativity into Business Practice*, IGI Global Book, Hershey, PA.
- Sedera, D., Lokuge, S., Grover, V., Sarker, S. and Sarker, S. (2016), "Innovating with enterprise systems and digital platforms: a contingent resource-based theory view", *Information and Management*, Vol. 53 No. 3, pp. 366-379.

-
- Siggelkow, N. and Levinthal, D. (2003), "Temporarily divide to conquer: centralised, decentralised, and reintegrated organisational approaches to exploration and adaptation", *Organization Science*, Vol. 14, pp. 650-699.
- Smagina, A. and Lindemanis, A. (2012), "What creative industries have to offer to business? Creative partnerships and mutual benefits", *World Academy of Science, Engineering and Technology*, Vol. 71, pp. 1839-1844.
- Spieth, P., Schneckenberg, D. and Ricart, J.F. (2014), "Business model innovation – state of the art and future challenges for the field", *R&D Management*, Vol. 44 No. 3, pp. 237-247.
- Stuart, T.E. and Podolny, J.M. (1996), "Local search and the evolution of technological capabilities", *Strategic Management Journal*, Vol. 17, pp. 21-38.
- Sundbo, J. (2011), "Creative artists and entrepreneurship", in Hindle, R. and Klyver, K. (Eds), *Handbook of Research on New Venture Creation*, Edward Elgar Publishing, Cheltenham, MA, pp. 328-343.
- Svahn, F., Mathiassen, L. and Lindgren, R. (2017), "Embracing digital innovation in incumbent firms: how Volvo cars management competing concerns", *MIS Quarterly*, Vol. 41 No. 1, pp. 239-253.
- UNCTAD (2004), *Creative Industries and Development*, Geneva, United Nations.
- Venkatraman, V. (2017), *The Digital Matrix: New Rules for Business Transformation Through Technology*, Lifetree Media, Vancouver.
- Vial, G. (2019), "Understanding digital transformation: a review and a research agenda", *Journal of Strategic Information Systems*, Vol. 28 No. 2, pp. 118-144.
- Visnjic, I., Wiengarten, F. and Neely, A. (2016), "Only the brave: product innovation, service business model innovation, and their impact on performance", *Journal of Product Innovation Management*, Vol. 33 No. 1, pp. 36-52.
- Yoo, Y., Henfridsson, O. and Lyytinen, K. (2010), "The new organizing logic of digital innovation: an agenda for information systems research", *Information Systems Research*, Vol. 21 No. 4, pp. 724-735.
- Zhou, J., Li, J., Jiao, H., Qiu, H. and Liu, Z. (2018), "The more funding the better? The moderating role of knowledge stock on the effects of different government-funded research projects on firm innovation in Chinese cultural and creative industries", *Technovation*, doi: [10.1016/j.technovation.2018.11.002](https://doi.org/10.1016/j.technovation.2018.11.002).