

INNOVATION AND THE ARTS



**THE VALUE OF HUMANITIES
STUDIES FOR BUSINESS**

**EDITED BY
PIERO FORMICA
JOHN EDMONDSON**

Innovation and the Arts

Creative, innovative and artful... (the) work is timely, particularly in relation to the recent Nobel Prize in Economics 2019.

Leif Edvinsson, Professor Emeritus, Lund University,
Co-founder of the New Club of Paris, and
Honorary Chairman, Henley KM

Formica and Edmonson bridge the cultural gap between the arts and sciences in this timely and perspicacious volume.

Professor Henry Etzkowitz, International Triple Helix Institute,
Silicon Valley and President, Triple Helix Association

Innovation and the Arts: The Value of Humanities Studies for Business

EDITED BY

PIERO FORMICA and JOHN EDMONDSON



United Kingdom – North America – Japan – India – Malaysia – China

Emerald Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2020

Copyright © 2020 Emerald Publishing Limited

Reprints and permissions service

Contact: permissions@emeraldinsight.com

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-78973-886-5 (Print)

ISBN: 978-1-78973-885-8 (Online)

ISBN: 978-1-78973-887-2 (Epub)



ISOQAR certified
Management System,
awarded to Emerald
for adherence to
Environmental
standard
ISO 14001:2004.

Certificate Number 1985
ISO 14001



INVESTOR IN PEOPLE

'The great art to make a nation happy, and what we call flourishing, consists in giving everybody an opportunity of being employed; which to compass, let a Government's first care be to promote as great a variety of Manufactures, Arts and Handicrafts as human wit can invent ...'.

(Bernard Mandeville, 1714, quoted by John Maynard Keynes in *The General Theory of Employment, Interest and Money*, 1936, p. 361)

To Gigliola: The Boboli Gardens were our open-air museum where the hours spent together are still hidden.

Piero Formica

To Whistler's Nocturne 'Blue and Silver – Chelsea', with its lights shining through the gloom.

John Edmondson

This page intentionally left blank

Contents

About the Contributors	<i>ix</i>
Introduction by Brian Donnellan	<i>xi</i>
Acknowledgements	<i>xvii</i>
Chapter 1 Business, Innovation and the Arts: The Golden Encounter <i>Piero Formica</i>	<i>1</i>
Chapter 2 The Golden Path Towards the Arts In/With Business <i>Tatiana Chemi</i>	<i>43</i>
Chapter 3 Teaching Intangibles: Uncertainty and Imperfection and the Institutional Challenge of the Unmeasurable <i>John Edmondson</i>	<i>59</i>
Chapter 4 On Regarding the Value of Aesthetics for Entrepreneurship <i>Jay Mitra</i>	<i>73</i>
Chapter 5 The True Value of ‘Doing Well’ Economically <i>Morten Tonnessen</i>	<i>91</i>
Chapter 6 Beyond the ‘Great Derangement’: Will the Humanities Lead Ecological Transition? <i>Fabio Maria Montagnino</i>	<i>111</i>
Chapter 7 Move Slow and Nurture Things: Wise Creativity and Human-Centred Values in a World that Idolizes Disruption <i>Danah Henriksen and Punya Mishra</i>	<i>143</i>

Chapter 8 How Businesses Can Benefit from Collaborating with the Arts <i>Peter Robbins</i>	163
Chapter 9 The Arts as an Economic Driver in an Era of Exponential Technologies: A Silicon Valley Entrepreneur's Perspective <i>Sheridan Tatsuno</i>	187
Chapter 10 Leadership in Business, Innovation and Art: Lessons Learnt from an Orchestra Conductor <i>Edna Pasher, Roni Porat, Yaara Turjeman-Levi, Mor Harir and Yael Caspi</i>	207
Index	217

About the Contributors

Tatiana Chemi is an Associate Professor, Department of Culture and Learning at Aalborg University, Denmark, and works in the field of artistic learning and creative processes. She is a productive author and a passionate arts-based scholar. Her latest work focusses on cross-cultural artistic creativity, artist-led education and the theatre laboratory as a pedagogical and activist environment.

Brian Donnellan is a Vice President of Engagement and Innovation at Maynooth University, where he is also Academic Director of the Innovation Value Institute. His teaching and research interests lie primarily in the areas of Innovation Systems and IT Governance. Prior to becoming an academic, he spent 19 years working in the IT industry.

John Edmondson is an independent scholar in Victorian Studies, Editor of the bimonthly journal *Industry and Higher Education* (published by Sage), a writer and a publishing consultant. Current research interests include thanatourism, the meaning of urban space and place, and social physiologies of the nineteenth century.

Piero Formica is a Senior Research Fellow of the Innovation Value Institute at Maynooth University in Ireland and a Professor of Knowledge Economics at the Contamination Lab of the University of Padua, Italy. Professor Formica received the Innovation Luminary Award in 2017 from the EU's Open Innovation Science and Policy Group for his work on modern innovation policy. Previous publications with Emerald include *Grand Transformation Towards an Entrepreneurial Economy: Exploring the Void*, 2015 and *Exploring the Culture of Open Innovation: Towards an Altruistic Model of Economy*, 2018.

Danah Henriksen is an Assistant Professor of Leadership and Innovation with the Mary Lou Fulton Teachers College at Arizona State University, USA. Her research has focussed on the psychology of creativity in teaching and learning, design thinking and technology integration in education. She teaches and has designed courses in varied topics such as educational psychology, leadership, systems thinking, educational change theory, design thinking, creativity, etc.

Punya Mishra is an Associate Dean of Scholarship and Innovation and Professor, affiliated with the Mary Lou Fulton Teachers College and the Herberger Institute for Design and the Arts, at Arizona State University, USA. He is internationally

recognized for his work in technology integration; the role of creativity and aesthetics in learning; and the application of design-based approaches to educational innovation. He is an award-winning teacher and an accomplished visual artist and poet.

Jay Mitra is a Professor of Business Enterprise and Innovation at Essex Business School, University of Essex, UK, and the Director of its Venture Academy. He is also a Guest Professor at Luephana University, Germany, and Bayero University, Nigeria. He is the Editor of the *Journal of Entrepreneurship and Innovation in Emerging Economies*.

Fabio Maria Montagnino is Head of Innovation and Entrepreneurship at The Cyprus Institute. He was formerly Director of Consorzio ARCA, the incubator of the University of Palermo, Italy. After academic experience of research on complex systems he moved to the private sector where he has been promoting open innovation models through the generation of knowledge-based start-ups and technology transfer activities. Currently, his main interest is in the holistic combination of creativity, entrepreneurship and innovation for the perspective of sustainable development.

Edna Pasher, PhD & Associates, founded in 1978, is a leading management consultancy firm in Israel. Dr Edna Pasher is one of the world's leading pioneers in the field of knowledge management and innovation. For over 41 years through training, consulting and research, the company has supported managers in leading and helping their organizations grow.

Peter Robbins, formerly Head of Innovation Excellence for GlaxoSmithKline and Head of the Department of Design Innovation at Maynooth University, is a leading innovation and new product and service development expert in Ireland. A member of the Irish Government's National Design Forum, he has developed innovation courses and workshops for organizations in the public and private sectors.

Sheridan Tatsuno is an entrepreneur who integrates urban planning, energy, transit, semiconductors, virtual reality (VR) and sustainability with his three VR start-ups. A graduate of Harvard's Graduate School of Design, he served as an Industry Liaison Manager at Stanford and JIBS.se. His business books have been aired by PBS and UK television.

Morten Tønnessen is Professor of Philosophy at the Department of Social Studies, University of Stavanger (UiS), Norway, and Vice-Dean of Research at the UiS's Faculty of Social Sciences. He is the main Editor-in-Chief of *Biosemiotics* (<https://link.springer.com/journal/12304>), and President of the Nordic Association for Semiotic Studies (nordicsemiotics.org).

Introduction

Humankind is going through a transformative era. We are experiencing a major shift in our technical and socio-technical landscape that will integrate several core information technologies including mobile communications, cloud computing and data analytics. The business environment in which we work is being dramatically transformed by a confluence of emerging forces (Skilton, n.d.) ‘Consumerization’ is driving down the costs of storage, networks and applications. ‘Communitization’ is creating networks and devices that are increasingly globally connected. ‘Virtualization’ is providing information at our fingertips. ‘Servization’ has resulted in a rise in platforms that offer meeting places and points of connection to search, send and receive information, goods and services.

Successfully navigating our way through this maelstrom of competing and conflicting societal forces will require humankind to marshal its full range of scientific and social competences so that it can develop holistic responses to challenges not easily compartmentalized into traditional, conventional knowledge disciplines. One received view of science sees it as universally valid and located outside the messiness of national, linguistic and popular cultures. One received view of the humanities sees them as co-terminus with creative arts and the associated intellectual and critical disciplines. These mutually reinforcing and restrictive views of science and the humanities underlie a long-standing discussion about ‘two cultures’ – a phrase most often associated with the lectures and writings of the scientist-novelist C. P. Snow (Trench, 2003). Snow (1959/1993) claimed that in the political culture, in the culture of the universities, in the cultures of science and of the humanities, the production and reproduction of knowledge continued to be represented – and experienced – as taking place in two worlds, two paradigms or two cultures. The institutions, life-worlds and discourses of the professionals involved all contributed to these representations of polarity.

The roots of this polarity run deep. Around 387 BCE Plato founded the Academy. This institution survived for 900 years. The Lyceum was begun in 335 bce by Aristotle. Starting with the Greeks, Western thinkers, unlike their Chinese counterparts, often sought to establish their independence from the masters who had initiated them into intellectual life (Blair & McCormack, 2010). The new masters founded schools which then felt free to subscribe to competing intellectual approaches (Bowen, 1972). In the West, the agonistic tradition of formal education was deeply rooted in Greek antiquity. It persisted not merely through

Medieval dialectic and disputations and Renaissance scholarly polemic, but with remarkable vigour well into the eighteenth century. When the agonistic mode of education was functioning at its maximum – as, for example, in Medieval and Renaissance universities – a student was not formally taught to be ‘objective’ about knowledge. What was taught in the formal educational operation was to take a stand in favour of a thesis (the leading assertions in a doctoral dissertation) and to attack another thesis that someone else defended. Defence of theses and attacks on theses marked procedures for the teaching not only of such subjects as philosophy, law and theology, but also of physics (then known as natural philosophy) and medicine.

Universities in the sense of an organized body of masters existed by the twelfth century in Bologna and Paris, and the earliest universities initiated a separation of different schools of thought as a fundamental building block of university design that was to last over 700 years and still persists today. By 1231 there were four faculties in Paris, each under a Dean: arts, canon law, medicine and theology (Haskins, 1923). These fundamental entities persisted through the ages. No less a figure than Adam Smith argued that:

the subdivision of employment in philosophy, as well as in every other business, improves dexterity, and saves time. As each individual becomes more expert in his own particular branch, more work is done upon the whole and the quantity of science is thereby increased. (1776, I, ii, p. 13)

Disciplines, to Smith, were an artefact of scholars seeking a niche in the marketplace of ideas (McNeely & Wolverton, 2006).

As our engagement with complex intellectual challenges increased, the crossover between the humanities and science also increased (Edwards, 2008). John Dewey (1934), in his essay *Art as Experience* showed how ideas develop between the arts and the sciences and what happens when they do. Thomas Kuhn (1996) in the *Structure of Scientific Revolutions* and Jacob Bronowski (1956/1975) in *Science and Human Values* describe how artistic aptitude, often more than arduous application of the scientific method, leads to scientific revolutions – as when Johannes Kepler made his breakthrough scientific discoveries in astronomy by optimizing what he viewed as the harmony of celestial bodies with musical notes. Internationally, scientists today show increasing interest in relationships between natural sciences and the humanities, arts and public culture. The evidence is found in papers, essays and correspondence in scientific journals and magazines, dealing with ethical, sociological, political, creative and other aspects of science. Plant scientist Nick Battey (1999) wrote that scientists should ‘remember ... that what we know and consider valid knowledge is dependent on language, culture, our time in history, and society’. He suggested that scientists have failed to communicate what many of them are clear about, namely that ‘science is not able to answer questions about “first and last things” ... [and is not] a method for being right’. Battey identified a ‘hard science’ position that:

overstates the claims of science and does real harm ... The world revealed by science has a fissure in its soul that must be filled by the products of other human activities including literature, music, art and religion. (quoted in [Trench, 2003](#), p. 63)

Throughout history there have been exceptional human beings who transcended conventional modes of thinking and developed insights drawn from a convergence of disparate schools of thought. Leonardo da Vinci was one such person, with his ability to combine the skills of an artist, an artisan and a natural philosopher to wonderful effect across a broad range of fields of endeavour. The ability of some individuals to use different frames of reference and novel 'lenses' through which to examine problems has enabled them to provide new insights into seemingly intractable problems or surface issues in the human condition that might theretofore have gone unnoticed. Primo Levi, a chemist by training, wrote very effectively on the human condition. He summed up his life as follows:

I have travelled as a loner and have followed a winding path, forming for myself a haphazard culture full of gaps in a smattering of knowledge. In recompense, I have enjoyed looking at the world from unusual angles, inventing, so to speak, the instrumentation; examining matters of technique with the eye of a literary man, and literature with the eye of a technician. ([Levi, 1985/1991](#), p. vii)

The need for greater cohesion across traditional disciplines is perhaps most acute in the case of business. Etzkowitz, in his essay on the rise of entrepreneurial science in universities, described how universities in the USA gradually introduced entrepreneurial thinking to the academy ([Etzkowitz, 2001](#)). During the first academic revolution of the late nineteenth and early twentieth centuries, American universities integrated research along with teaching into their academic mission. Etzkowitz characterized the second revolution as being underway at the moment when findings from academic laboratories began to be transformed into marketable products.

Significant focus has been brought to bear on the potential for design to act as a nexus between business and the humanities in the pursuit of novel approaches to addressing cross-disciplinary participatory methods to co-creating solutions to so-called 'wicked' problems:

It's in Business Education that the attention to design is the most pronounced. For some time now, academics, business leaders, and journalists have celebrated Design as the saviour for failing corporations, the secret of savvy managers, and the resurrection of the MBA. In some circles, the evangelism for 'Design' and 'Design Thinking' is so strong that I've heard the 21st century referred to, a bit prematurely, as the 'Century of Design'. ([Burdick, 2009](#), p. 3)

The lineage of the Design-in-Business movement has been traced back to the Bauhaus school of design in Weimar Germany in the 1920s; the school's design philosophy has come to be captured in the phrase 'form follows function', implying that the optimum design will be the one that solves the problem of how to perform the function most effectively. What the Bauhaus designers actually advocated was that design should grow out of the integration of technology, craftsmanship and art (Lester & Piore, 2004).

If the defining quality of the humanities is the expression of the human condition by mood and feeling, calling into play all the senses, evoking both order and disorder, then the need for business to exercise the epigenetic rules of human nature to bias innovation, learning and choice has never been greater. In a recent somewhat controversial call-to-arms, Steven Pinker claimed that the humanities have yet to recover from the disaster of postmodernism, with its 'defiant obscurantism, self-refuting relativism, and suffocating political correctness' (Pinker, 2018, p. 406). He calls for a consilience that would offer the humanities many possibilities for new insight and claims that:

both sides would win. The humanities would enjoy more of the explanatory depth of the sciences, and a forward-looking agenda that could attract ambitious young talent (not to mention appealing to deans and donors). (Pinker, 2018, p. 406)

It is timely, then, that this collection of essays on the value of humanities to business will shed new light on this important topic. In keeping with the theme of the need for a catholic, eclectic range of perspectives, there are contributions on the potential role of arts *for* business, the arts *with* business and the arts' disruptive business (or *against* business). Creativity is also explored from the perspective of 'wise creativity' and the need to infuse more human-centred learning from the arts and humanities into business fields. The need for such soft skills to tackle the enormously complex ethical and policy issues facing businesses, such as trade disputes, cultural differences, hiring, gender equity, ageing, religious values, income disparities, climate justice, gene engineering and privacy is also highlighted. Case studies from the worlds of orchestra conductors and the performing arts in theatrical settings emphasize the need for new modes of thinking and alternative modes of discourse in the context of humanities–business conversations.

Indeed, the need for us to go beyond current impoverished modes of engagement is identified throughout this collection of papers as a *sine qua non* if we are to transcend our anthropocentric notions of economic performance. A degree of integration between economics, philosophy and biology is required, with the application of Umwelt theory and biosemiotics indicating a potential way forward. Sectors such as the creative industries are perhaps leading the way in exploring how the richness of the human condition can make invaluable contributions to new business models and new modes of entrepreneurial thinking. Techniques such as 'Serious Play' have been used since the mid-1990s as ways to enable managers to describe, create and challenge their views

on their business. The conceptual foundation of Serious Play combines ideas from constructivism, constructionism, complex adaptive system theory and autopoietic corporate epistemology applied to the context of management and organizations.

What seems certain is that breakthroughs in business will not always come from the rarefied atmosphere of laboratories dedicated exclusively to expertise in a single business discipline. One is reminded of the immortal lines of W.B. Yeats, who cautions against embracing ideas that are not grounded in the rich tapestry of the lived human experience:

God guard me from those thoughts men think
In the mind alone
He that sings a lasting song
Thinks in a marrow-bone¹

Brian Donnellan

References

- Batthey, N. (1999). Science with attitude. *Science & Public Affairs*, December.
- Blair, J. G., & McCormack, J. H. (2010). *Western civilization with Chinese comparisons*. Shanghai, China: Fudan University Press.
- Bowen, J. (1972). *A history of western education* (pp. 81–97). London: Methuen.
- Bronowski, J. (1975). *Science and human values*. New York, NY: Harper & Row. (Original work published 1956.)
- Burdick, A. (2009). Design without designers. Retrieved from http://anneburdick.com/Design-wo-Designers/Burdick_Design_wo_Designers_sm.pdf
- Dewey, J. (1934). *Art as experience*. London: George Allen & Unwin.
- Edwards, D. (2008). *Creativity in the post-Google generation*. Cambridge, MA: Harvard University Press.
- Etzkowitz, H. (2001). The second academic revolution and the rise of entrepreneurial science. *IEEE Technology and Society Magazine*, 20(2), pp. 18–29.
- Haskins, C. H. (1923). *The rise of universities*. Ithaca, NY: Cornell University Press.
- Kuhn, T. S. (1996). *The structure of scientific revolutions* (3rd ed.). Chicago, IL: University of Chicago Press.
- Lester, R. K., & Piore, M. J. (2004). *Innovation: The missing dimension*. Cambridge, MA: Harvard University Press.
- Levi, P. (1991). *Other people's trades*. London: Abacus.
- McNeely, I., & Wolverton, L. (2006). *Reinventing knowledge: From Alexandria to the Internet*. New York, NY: W.W. Norton & Company.
- Pinker, S. (2018). *Enlightenment now: The case for reason, science, humanism, and progress*. New York, NY: Viking Press.
- Skilton, M. (n.d.). The state of digital technology and enterprise. Retrieved from <https://www.markskilton.com/the-state-of-digital-tech-and-the-enterp>

¹From 'A Prayer for Old Age' (Yeats, 1934/1962).

xvi *Introduction*

- Smith, A. (1776). *An inquiry into the nature and causes of the wealth of nations*. London: W. Strahan and T. Cadell.
- Snow, C. P. (1993). *The two cultures*. Cambridge: Cambridge University Press. (Original work published 1959.)
- Trench, B. (2003). *Science, culture and public affairs*. Dublin, Ireland: The Ireland Institute.
- Yeats, W. B. (1962). A prayer for old age. In A. N. Jeffries (Ed.), *W. B. Yeats: Selected poetry* (pp. 175–176). London: Macmillan. (Original work published 1934.)

Acknowledgements

We thank the Innovation Value Institute of Maynooth University for supporting our research. In particular, our thanks go to Professor Brian Donnellan, Vice President of Engagement and Innovation at Maynooth University, who has contributed the Foreword. We would also like to thank Professor Fabrizio Dughiero, Vice-Rector for Technology Transfer at the University of Padua, who made it possible to present, during various cultural events in Veneto (a region with a rich artistic and entrepreneurial heritage) the theme of the interweaving of innovation and the arts.

We are very grateful to all our contributors for their commitment to the project and for the thoughtful and challenging perspectives they bring to this crucial topic.

We thank Tim Feest for his careful and creative work during the editing and preparation of the book.

We thank Emerald Publishing for seeing the potential in our initial ideas.

Piero Formica and John Edmondson
August 2019