
Introduction

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Digital information and communication devices have developed rapidly, and they are applied in increasingly sophisticated ways for many tasks and activities. This process of digitization is already having a considerable impact on the creative industries. An increasingly important aspect of creative works is the element of information goods and services that can be captured in digital bits. Digitization transforms the way creative works are generated, disseminated and used. Digitization has also enabled the development of new types of creative goods and services, such as video games, and new ways of financing creativity, such as crowd-funding, and it is blurring the boundary between producers and consumers. The effects of digitization are also felt in the traditional, non-reproducible arts, where it affects back-office tasks and brings up new related goods and services, for example. What is more, digital technologies generate plenty of data on activities related to creative works, which provides all types of stakeholders and researchers with new opportunities. This handbook contains 37 chapters that discuss the implications of digitization in the creative economy.

It has often been proclaimed that there will be substantial changes in the arts, cultural heritage and media industries in the course of digitization. It has also turned out to be difficult to make adequate predictions about the types of change, their timing, or their normative implications. Visions of perfectly competitive markets, an age of access and do-it-yourself culture contrast with concerns for excessive commercialization, market power of transnational conglomerates, or the erosion of the established, professional cultural practices and excellence. In so far as concepts and predictions are precise and specific enough to allow for comparisons, many seem incompatible with each other. This lack of understanding makes it hard to develop practical insights for stakeholders or generally acceptable public policy. The handbook seeks to present the results of sober academic work so far. The aim is to inform the public debate and those seeking to develop new insights.

The term 'creative economy' has taken hold in the last decade or so along with the adoption of the notion of creative industries encompassing the arts, heritage and cultural and media industries. This new paradigm is based on several shared features of the performing arts, the art market, museums, publishing of literary and academic texts, recorded music, film, broadcasting, fashion, advertising, games and so on. They all deal with novel ideas of cultural and social value that are produced by creative people. Valuable new ideas can be exploited to produce wealth, income and economic growth, though the goods and services that embody them are not perfectly excludable and they give rise to substantial external benefits. What is more, demand conditions for what are often thought of as experience goods are notoriously uncertain.

The idea of a creative economy, that is, an economy in which creativity and human capital rather than innovation in physical capital are the drivers of productivity and growth, seems to be relatively recent. Other nomenclature has been adopted previously

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for similar conceptions, such as the knowledge economy, the Internet economy, the digital economy, the information society and so on (Carlaw et al., 2006). Early on, it was the Internet rather than digital technology that was regarded as the force behind changes hitting the ‘mass media’, the preferred term among cultural sociologists and media scholars (Picard et al., 2008). Similarly, there was no consensus on what to call these ‘cultural’ industries, which overlapped with media industries and were not the same as the arts but related to them. Cultural economics, developed in the 1960s as the economics of the arts, acquired its title as a parallel to cultural sociology (Towse, 1997). These changes in terminology, taxonomy and conceptualization do not appear to have any methodological significance in the philosophical sense. However, agreement on terms is necessary for clarification of the scope of public policy and also for academic enquiry. A review of these matters was part of an important milestone in the creative industries paradigm, the publication of *Creative Economy Report 2008* by the United Nations Conference for Trade and Development (UNCTAD), which worked with other UN agencies, the UN Educational, Scientific and Cultural Organization (UNESCO) and the World Intellectual Property Organization (WIPO), which effectively endorsed the term ‘creative economy’ (UNCTAD, 2008). The accepted term for the arts and cultural enterprises in the creative economy now seems to be established in the international sphere as ‘cultural and creative industries’ or simply ‘creative industries’; however, authors writing in this area still use somewhat differing terms, and that is also the case in this book.

Do terminology and defining boundaries matter? If we stick to talking in general about these developments, it hardly does. That is different when it comes to measuring the contribution to the national economy of the creative industries and their growth, which has been one of the main reasons for the promotion of the notion of the creative economy. To establish those features, it is necessary to have a listing of industries with consistent industrial classification that can be measured over time. The UK’s list – advertising, architecture, art and antiques, craft, design, designer fashion, film and video, interactive leisure software, music, performing arts, publishing, software, television and radio – has been adopted elsewhere, but it is not definitive. If we want to measure the contribution of the creative industries to the national income and growth – and these figures precede many a government document – there have to be consistency and the avoidance of double-counting. Although there is some controversy as to how they should be measured, it is generally the case that they make a significant contribution to gross domestic product (GDP) and are growing faster than the average, and that is the case in a range of economies, not just in developed ones (WIPO, 2012).

Digitization has spread very quickly and in some ways has had unprecedented effects, both intended and unintended, on all aspects of life; there is, however, a ‘digital divide’, with the wealthy and citizens of developed countries being more ‘connected’ than the poor in less developed countries. Digitization is a general purpose technology (GPT) in the sense that it has spread universally through disparate aspects of production and consumption in the economy; Lipsey et al. (2005) argue that digitization has produced a technological revolution in the same way that steam and electricity did in previous industrial revolutions. Moreover, there have been other GPTs in the past that have impacted on the arts and effectively created cultural industries: the printing press, engraving and photography, sound recording and film, radio and television, and transistorization, to name some. All have increased access to the arts and culture to ever more

consumers – readers, visitors, listeners and viewers. They have led to the production of both ‘software’ and ‘hardware’ that enable the widespread distribution of creative content in printed books, reproductions of works of art, sound recordings, films and the like, as well as the facilities needed to access them – record players, cinemas, radio and TV sets, DVD players and so on. Some developments have allowed people to produce their own work, such as cameras and film, camcorders and sound recording equipment. Digital technologies have taken all these activities a stage further, and the Internet has vastly extended their distribution. Indeed, the Internet has created its own possibilities for creators. Many technologies have fallen by the wayside and have not been heard of again (Picard et al., 2008). Others did not deliver on the initial promises associated with them. A significant question in cultural economics has been the ability of arts organizations, particularly in the performing arts with their labour-intensive production process, to adopt technologies that enable productivity to rise in tandem with that of the rest of the economy, thus reducing costs of production and holding down price rises. It is an interesting question whether the well-known ‘cost disease’ (Baumol and Bowen, 1966) can finally be defeated by digital technologies; according to Baumol’s chapter in this volume (Chapter 2), it cannot.

This book includes all these aspects of the digital creative economy: some chapters deal with the transition to the present and others with the new and foreseeable. Other economists have placed emphasis on the Internet’s impact on the creative industries; we prefer to consider digitization as the basis of change, viewing the Internet as a means of delivering digital goods and services. Both are valid approaches and no doubt offer somewhat different insights. Furthermore, any analysis of the creative economy has to take into account telecommunications, which both provide platforms for distribution of creative content and are responsible for accessibility to that content. That has not so far been part of the study of the creative industries.

Another vital dimension to considering the impact of digitization on the creative economy is the role played by copyright law, which is probably its chief means of regulation. Copyright law and the creative economy are so closely connected that the creative industries are also called ‘copyright industries’ or ‘copyright-based industries’ by some authors (UNCTAD, 2008; WIPO, 2012). One of the leading ‘problems’ in the creative economy has been the impact that digitization has had on the efficacy of copyright law. That has been confronted in two ways both in practice and in the literature: first, by the enhancement of copyright law to cope with digital content and distribution; second, by the development of new business models that enable creators and the creative industries to make money in the digital world. The economics of copyright is a whole field in itself, with theoretical and empirical literatures (Towse et al., 2008). Several aspects of digitization and copyright are included in the book: how copyright law has adapted to digitalization; the implications for the administration of copyright by collecting societies; and the connection between copyright law and competition policy. The impact of digitization and the Internet on unauthorized usage of copyright material has been a major topic in the economics of copyright and is represented here too.

Most chapters in the book have been specially commissioned. A few are based on existing longer articles. Authors were asked to keep their contributions to around 5000 words (in order to allow a wide range of topics to be covered) and to offer guidance for further reading. The focus of many chapters is on the impact of digitization on a

particular industry or sector, but several chapters offer an overall perspective on the evolution of technologies in the arts and culture that provides a perspective on the impact of digital technology. Though there is some degree of overlap in the chapters, each author clearly has an individual outlook and contribution to make. As the field is new, there are as yet no established schools of thought or a single disciplinary basis. The outlook of many of the authors is interdisciplinary or multi-disciplinary, while the unifying bond is expertise in aspects of the creative economy. It is interesting to consider whether analysis of the digital creative economy will eventually emerge as a discipline in its own right. We should also consider whether new concepts are needed for the task or whether existing ones in the various disciplines are sufficient.

The book is divided into five thematic parts: perspectives on digitization in the creative economy; development of technologies in the creative economy; policy and copyright issues in the digital creative economy; copyright and digitization; and creative industry studies, in which the impact of digitization in specific industries is analysed in depth. Chapters have been allocated to these parts according to the main thrust of the authors' argument.

In Part I, perspectives on digitization in the creative economy include Bekar and Haswell's overview of digitization as a GPT (Chapter 1), Baumol on technological development in a range of labour-intensive services, one being the performing arts and its impact and costs (Chapter 2), Potts's evolutionary economics approach to the digital economy (Chapter 3), and Pratt on the spatial aspects of the digital creative economy (Chapter 4). Searle and White look at business models, which have been seen by some economists as the countermand to unauthorized and unremunerated use of copyright material, commonly called piracy (Chapter 5). van Kranenburg and Ziggers analyse industrial organization, and how firms can cope with perpetual change (Chapter 6). Bruns discusses the development from 'prosumption' to 'produsage', by which users adopt an increasingly important role in the production and reproduction of creative material – undoubtedly a fundamental change in the distinction normally made in economics between supply and demand (Chapter 7). Changing consumption patterns are traced by van Eijck and Majorana (Chapter 8). Finally, Norris and Inglehart discuss the global issue of the digital divide between those with and those without access to the Internet and the benefits of digital products and production methods (Chapter 9).

Part II, on development of technologies in the creative economy, moves into more specific treatment of the impact of successive technological progress in the arts and culture, which generally speaking has broadened the supply of new creative products through the ages, made them copiable and increased access for consumers. Bekar provides a historical analysis of copying technologies (Chapter 10), and Tschmuck traces the role of technological change in cultural development (Chapter 11). For the present time, Latzer shows the effects of media convergence (Chapter 12), while Tadayoni and Henten offer a detailed picture of the successes and failures of digitization in the context of digital television broadcasting, demonstrating that technological development is not smooth and its promises are not always fulfilled (Chapter 13).

Part III, on policy and copyright issues in the digital creative economy, considers the effect of digitization on various aspects of cultural policy, in particular copyright law. Perhaps a word of explanation is due here: copyright law clearly has a significant economic dimension to it, and the various aspects to the law establish incentives and

rewards for the creation and the distribution of protected works. The changes being made to copyright law to cope with digitization are strongly related to creative industry policy and also to cultural policy, since they determine rights of access to cultural material, much of which is in copyright. Starting with cultural policy, Flew and Swift consider the development of cultural policy over the previous 50 or so years (Chapter 14). The chapter by Goodridge provides a detailed discussion of the problems of measuring the creative economy and recommends a new way of treating copyright content in national income accounts, a topic that has considerable policy implications given the emphasis in government circles on the growth and sustainability of the creative industries (Chapter 15). Doyle analyses a neglected area of the creative economy, namely international trade in audiovisual products, which has an important cultural policy dimension (Chapter 16). Turning to copyright law as such, DiCola gives an account of the changes to copyright law due to digitization (Chapter 17). Watt analyses the relation between copyright and contracts, a little-explored aspect of copyright as an incentive to create (Chapter 18), and Katz considers the competition policy aspects of copyright (Chapter 19). Hilty and Nérissou turn to policy on collective rights management, a topic of considerable political debate, as digitization impacts on remuneration of copyright holders (Chapter 20). Poort's chapter on copyright levies, an administrative solution to the problems of enforcing copyright, rounds off this part (Chapter 21).

Part IV focuses on empirical studies of the economic effects of digitization on copyright. Handke's chapter surveys the evidence on copyright's role, both positive and negative, in the creative economy (Chapter 22), and Liebowitz estimates the impact of Internet piracy on the sales and revenues of copyright owners (Chapter 23). Atladottir, Kretschmer and Towse report on evidence on artists' earnings from copyright and the incentives that copyright and authors' rights have for primary creators (Chapter 24). Another perspective is provided by Farchy, Gansemer and Petrou, who consider whether the new opportunities the Internet and digitization offer to authors and other creators alter their remuneration (Chapter 25). Homberg, Favale, Kretschmer, Mendis and Secchi report on their study of a problem that many governments are currently tackling – how to treat access to orphan works, that is, works that may be supposed to be in copyright but whose owners cannot be traced; this is holding up the process of digitizing archives in libraries of books, films, music and so on that fully exploits the potential of digital ICT for preservation and for dissemination of creative works (Chapter 26).

Part V consists of chapters on the impact of digitization on specific creative industries. First off, Towse summarizes the little work that has so far been done in cultural economics on the use of digital technologies in the performing arts that increase access and offer new sources of revenue (Chapter 27). Arora and Vermeylen discuss art markets, which may become much more transparent as digital databases become widely available (Chapter 28). Navarrete's research shows how far digital technologies have already pervaded various aspects of the work of museums (Chapter 29). Wikström and Johansson analyse the economic consequences of digitization on the markets for consumer magazines and trade books (Chapter 30), while Farchy, Gansemer and Petrou present their research on ebooks, drawing conclusions about the implications for cultural diversity in the book market (Chapter 31). Mueller-Langer and Scheufen discuss academic publishing – a topic many readers will have first-hand experience with – and the trend towards open access publishing online in particular (Chapter 32). Bakker and van der

Wurff report on the challenges for news publishers with digitization (Chapter 33). Waelbroeck on the music industry illustrates how the market for music has now become more complex and uncertain with digitization, while better digital data may help to drive back uncertainty in the future (Chapter 34). Stepan concentrates on the impact of digitization on film distribution (Chapter 35), and Withers discusses digitization in broadcasting and the wider implications for media policy (Chapter 36). Banks and Cunningham conclude this part with an account of games and entertainment software, the 'digital native' among the creative industries, arguing that innovative research is needed to better explain the dynamic development of this sector (Chapter 37).

Overall, this handbook covers most of the topics that have been researched on the implications of digitization in the creative economy. As with all research, some areas have received more attention than others. While we have striven to present as complete an overview as possible, there are gaps in the research and in our own ability to commission papers. It is still very early days for research in some areas. It is our hope that the book will inform researchers, foster an exchange of ideas and help to identify relevant gaps in the literature to work on. We also intend that this book will cause students, policy makers and all types of stakeholders to take inspiration from the academic work already done.

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