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## Preface

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Digital technologies dominate today's society, in a manner that we could not have anticipated when the first digital computers emerged in the 1950s. Nowadays, we take for granted that personal computers, portable mobile phones, tablets, digital cameras and recording devices are ubiquitous. We do not think twice about streaming our favourite books, music and films 'on the go' through wireless communication technologies or participating in online communities in which we create and share content, or through which we buy, sell and exchange items, at the click of a button or a simple voice activation tool. We also live in a world where we collectively generate huge volumes of data, which can be mined rapidly for patterns, and from which algorithms can predict behaviour or generate new content. In short, we are in the midst of the digital revolution – and have been for some decades – and this brings with it many challenges, of which legal regulation is one.

This Handbook focuses on intellectual property law and the role that it plays in regulating digital technologies. This is because intellectual property law governs how we protect intellectual creations and technological innovations and thus is bound to be a site of contest in relation to digital technologies. While several digital developments may implicate more than one intellectual property right, this book is organised according to types of intellectual property right – Part 1: copyright and related rights, Part 2: patents and trade secrets, Part 3: trade mark law and designs – and within these divisions according to technological phenomena (software, databases, big data, user generated content, ebooks, streaming, artificial intelligence, domain names, metatags, adwords, and 3D printing). The reason for this choice is because some technologies fall primarily within one type of intellectual property right and, even where several rights are involved, different issues arise that deserve separate treatment. Part 4: competition and enforcement explores issues that cut across all these areas of technology – examining civil, criminal and technological measures that may be used to enforce intellectual property rights in a digital landscape.

The purpose of each chapter is to provide a scholarly account of the relationship between particular intellectual property rights and relevant facets of digital technology, to reflect on the normative dilemmas these relationships pose and to identify potential future challenges. Each contributor has sought to frame their discussion within an international, EU and/or US legal context and, where appropriate, that of other national jurisdictions. During the writing and publication process legislative and case developments have moved apace and contributors have done their best to incorporate these. Although digital technologies and the law applying to them may be dynamic, the chapters in this volume are designed to provide a collection of enduring reflections on the legal issues at stake.

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