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Accounting for Intellectual Property: inconsistencies and challenges

Abstract
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The effects and implications of the development of a global regime for accounting for intangibles may eventually harmonise the accounting treatment for intellectual property but does not resolve the contentious issue of the inconsistencies in the recognition of intellectual property rights under different frameworks and the implications for economic decision making.

Keywords
Intangible assets, intellectual property, international accounting standards

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Accounting for intellectual property: inconsistencies and challenges

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The recognition of the rights attached to some forms of intellectual property is a contested domain in legal frameworks, such as the Trade Related Aspects of Intellectual Property Rights Agreement. The same can be said of economic frameworks, such as accounting which attempt to recognise and value intellectual property for the purposes of providing information for decision making. In this paper we explore the discourse of accounting in the recognition of intellectual property as an asset according to the new International Accounting Standards. We then contrast the legal and accounting discourses in which intellectual property rights are acknowledged, concluding that these discourses are not necessarily aligned.

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Introduction

"There is an unfortunate tension regarding modern intellectual property. On the one hand, intellectual property has never been of more importance to a wide range of actors, both public and private, within society. On the other hand, intellectual property has become more or less complex in its substance and regulation by the law. As a result there is a non-trivial 'knowledge gap' in significant sections of the community about intellectual property"[1].

The knowledge gap referred to above is a term that attempts to highlight the contestable nature of intangibles such as intellectual property (IP) and the rights attached to them. This paper demonstrates that this gap also exists between the economic framework of accounting, which attempts to recognise intangibles as assets, and legal frameworks that recognise intellectual property rights (IPR). This lack of consensus creates significant challenges for companies operating in a global environment. Accounting, as with the legal environment, has entered into the global arena through the introduction of an international suite of accounting standards for financial reporting in domestic regimes. Whilst legal regimes seek to define IP as an intangible with particular qualitative characteristics such as inventiveness and novelty, accounting regimes seek to measure and quantify according to the economic benefit that the intangible will accrue to an entity and subsequently capital providers.

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Financial accounting reports are said to provide information for users to make economic decisions, in particular decisions relating to investment. The information presented has implications for the allocation of scarce resources and is therefore subject to regulatory intervention in the form of accounting standards. These standards determine the measurement and disclosure requirements for the elements of financial statements. In accounting discourse IP and IPR are recognised as intangible assets if they satisfy the criteria of the accounting standards. Representation in a company's balance sheet rests on the ability to measure and value according to the rules for recognition of an asset

In most 'western' industrialised nations, the accounting rules or standards have traditionally emerged from a national process of standard setting. In 2001, the internationalisation process was revitalised by the new International Accounting Standards Board (IASB) resulting in the promulgation of a suite of international accounting standards for financial reporting. The associated accounting rules and definitions are a political, institutional and social practice that are contested and not necessarily aligned with discourses embedded in other frameworks.

Substantively creative or innovative knowledge derived from human endeavour is an intangible that may attract certain legal rights according to rules which govern those rights. In the attempt to measure and value intangibles, accounting frameworks have their own discourse of recognition and measurement and attach different meanings. This paper begins with an overview of accounting and its role in society, followed by a discussion of intellectual property and the discourse of accounting. These themes are set in the context of the internationalisation of accounting standards, in particular IAS 38 *Intangible Assets*. The paper concludes with a discussion of the contrasting nature and challenges that emerge from global rules in relation to the recognition of IPR.

Context of Accounting

Although the modern form of double entry bookkeeping is largely credited to the work of a 15th century Franciscan monk, Luca Pacioli, financial accounting has existed in some form as far back as record keeping in ancient civilizations[2]. The traditional view of accounting taught in introductory courses at university is that the practice and role of financial accounting is to produce and communicate financial information for users to make economic decisions. Two broad streams of accounting are further identified according to the nature of these users of financial information. Management accounting provides information for the internal decision-makers of an organisation. Budgeting and product costing are examples of management accounting practices. The quality of this information is judged according to its relevance and timeliness for decision-making. Financial accounting, conversely, provides information for users external to the organisation. The stewardship function of providing information to investors or potential investors by managers highlights capital providers as a primary user group. It is generally accepted, however, that there are a diverse range of stakeholders, including creditors, employees, civil society, lobby groups and governments who use financial accounting information for a variety of purposes. For this reason the attributes of financial information of reliability, objectivity and comparability are paramount.

Financial accounting information is usually presented in the form of financial statements consisting of a statement presenting a calculation of the profit or loss over a specified period of time and a statement of financial position presenting the assets and liabilities of an organisation at a specified date. In addition a statement reporting the cash flows for a specified period may be included. Other accounting information of both a non-financial and financial nature is disclosed in notes or appendices to the financial statements. The financial statement information relies on monetary figures to represent a transaction or flow of resources. In other words, it is an abstraction for 'real world' events[3]. Reliance of users on the information provided for decision making results in the highly regulated environment for financial reporting.

To ensure consistency of financial reporting, this regulation of accounting is most commonly found in accounting standards. In Australia, as in most jurisdictions, it is a mandatory requirement under company law[4] for preparers of financial reports to follow accounting standards promulgated by the national standard-setting authority. These standards basically prescribe the rules and procedures for the recognition, measurement and disclosure of financial and non-financial information in published financial reports. Recognition involves a system of criteria which define the elements of reports and include the answer to questions such as when does a transaction result in reporting of revenue; expenses; assets or liabilities. Measurement criteria govern how the elements are to be represented monetarily. Disclosure requirements mandate where this information is presented in the financial reports, or alternately disclosed in notes. These criteria are interdependent and intertwined. Measurement involves recognition and disclosure depends on measurement characteristics. In this way, accounting makes visible certain social phenomenon and transactions, however in doing so, it obscures others[5].

Although the conventional view of accounting as a communication device is reinforced and legitimated in the regulatory environment in which financial accounting is located, there is a body of literature that focuses on the notion that accounting mediates social relationships and is said to be a social and institutional practice. From this perspective, accounting gives meaning to social elements and social transactions, so that the definition and understanding of an asset or profit is peculiar to accounting and reinforced through regulation[6]. Therefore, the social and institutional context of accounting and standard setting is important to consider.

The Internationalisation of Accounting Standards

To recognise that accounting is a social and institutional practice also means recognising diversity in social, cultural, political and economic contexts. This diversity is seen between the various forms of organisation which give account as well as the cultural milieu in which accounting takes place. In most western economies, the standard setting procedure for accounting has traditionally existed at a national level. In the last decade the accounting profession has witnessed a shift to global or international accounting standards presenting challenges for the recognition and measurement of intangibles, in particular, intellectual property.

While the economic environment that corporations operate in has developed quickly over recent years, the accounting community has lagged behind. In 1973, the

International Accounting Standards Committee (IASC) was founded. Its primary objective was to develop a common international approach to accounting standard setting with a view to improve the principles underpinning the preparation of financial statements and global harmonisation of accounting standards.[7] Indeed, the current chairman of the international standard setting body, Sir David Tweedie sees the development and implementation of international accounting standards as imperative to the effective functioning of global capital markets and "essential to our economic well-being".[8] In 2001, a revised committee, the International Accounting Standards Board (IASB), with a new constitution and structure, emerged as a more powerful force and effectively revitalised the effort for global harmonisation. By 2005, a suite of international standards were ready for adoption in national contexts. First adoptees included the European Union, Australia and New Zealand. Whilst each country may choose not to endorse all standards, or indeed any standard in its entirety, in substance local standards are virtually word-for-word International Financial Reporting Standards (IFRS)[9]. In 2006 more than 100 countries have committed to adopt International Financial Reporting Standards, with many more expected to commit to adopt by 2011.[10] The continuing process of international standard-setting is currently viewed as a collaboration between the IASB and the US-based Financial Accounting Standards Board (FASB) in an effort to harmonise US standards. The aim is to ensure consistency between companies domiciled in the world's largest financial market and other jurisdictions.

An International Standard for Intangible Assets IAS 38

In accounting, expenditure on items of an intellectual property nature can be recognised as an asset if certain criteria are met. Assets are defined as either tangible, having physical substance, or intangible. Intangible assets are further classified as identifiable or non-identifiable. Whilst intangible assets are dealt with in a number of accounting standards, for example the definition and measurement of 'goodwill'[11] is regulated by a standard dealing with business combinations (IFRS 3), IP generally falls within the ambit of the international accounting standard devoted entirely to intangible assets, IAS 38 *Intangible Assets*. It is from within this standard that we examine accounting for IP.

IAS 38 *Intangible Assets* has created significant changes in the way companies account for their intangibles. By their very nature intangibles are both difficult to define and measure. As companies increasingly have their value based on intangible assets, the issues surrounding definition and measurement have become increasingly important.[12] Therefore, the release of the IAS 38 in March 2004, which applies to the accounting for intangible assets for annual periods commencing on or after 31st March 2004,[13] was regarded as a watershed.

"An asset is a resource that is controlled by the entity as a result of past events (for example, purchase or self-creation) and from which future economic benefits (inflows of cash or other assets) are expected."[14] An intangible asset is a non-monetary asset without physical substance. Examples of possible intangible assets include patents, copyright, goodwill, brand names and research and development. The critical attributes of an intangible asset according to this definition are:

- Identifiability
- Control (power to obtain benefits from the asset)

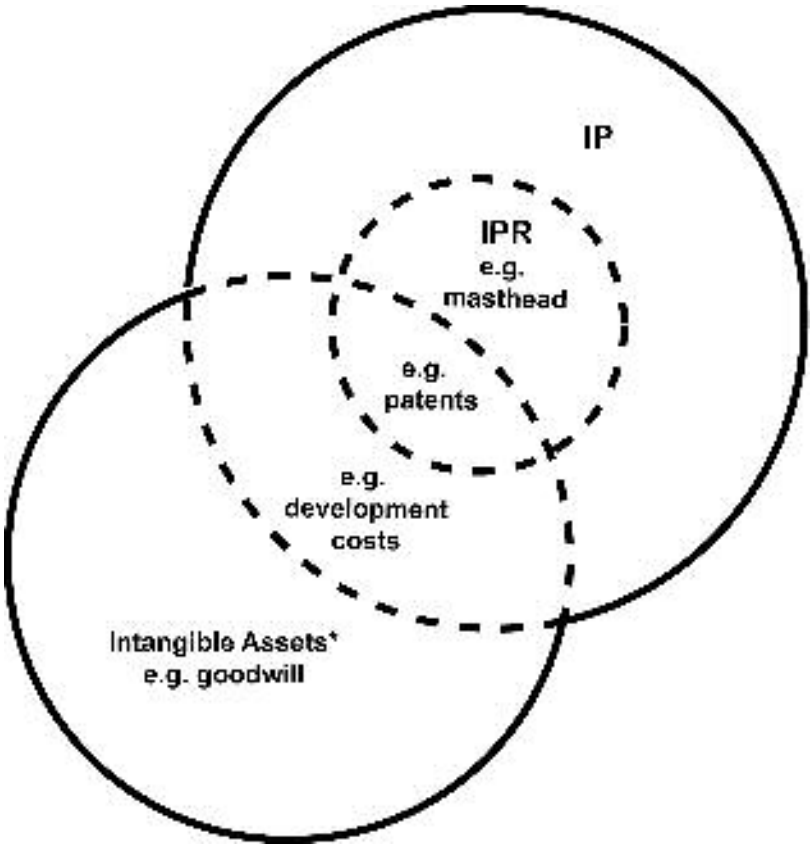
- Future economic benefits (revenues or reduction in costs)[15]
- The ability to measure reliably

IAS 38 distinguishes between internally generated intangibles and those which are purchased. Therefore, except in the special case of development costs, IP is recognised as an intangible asset only when it is the result of a commercial transaction. Whilst development expenditure is not generally separately identified as an IPR, there is some scope in legal regimes for the protection of certain information. In particular, the TRIPS Agreement (Art. 39.3) protects undisclosed test data relating to pharmaceutical and agricultural chemical products in the development phase. In contrast to the general characteristics of creativity and innovation the rationale is based on the notion of "unfair commercial use".

Intellectual Property: A 'Right' or 'Asset' or Both?

A tangible asset can be possessed exclusively by physical security against access by third parties, exclusive possession of intangible assets is problematic. In order to solve this problem, the law, through the granting of intellectual property rights, provides a means of legal security.[16] Intellectual property rights refer to legal entitlements held by legal entities (individuals or companies) that are enforceable under law against other legal entities. Recognising that intellectual property rights can be 'owned' and have 'value' in the modern globalised economy necessitates accounting regimes where values are measured and reported and ownership acknowledged. However not all IPR are recognised as intangible assets and conversely some intangible assets which are considered IP are not recognised as IPR by law (see figure 1).

Figure 1: Relationship between IP, IPR and Intangible Assets



* Intangible Assets as defined in accounting discourse

The inconsistencies demonstrated above arise from the differences in the underlying assumptions relating to 'intangibles' and the definitions of 'rights' and 'assets' according to the rules in legal and accounting discourses. The table below (Table 1) provides an overview of these contrasts.

Table 1: Contrasting Assumptions of IPR and Intangible Assets

	Legal discourse	Accounting discourse
Intangible	▪ Creativity ▪ Innovation ▪ Human endeavour	▪ Identifiable ▪ Non-monetary ▪ Without physical substance ▪ Measured reliably
Rights	Exclusivity related to: ▪ Subject matter and specific legal regime e.g. copyright ▪ Satisfies threshold on creativity and innovation ▪ Limited duration ▪ transferability	Asset definition based on: ▪ purchased not internally generated ▪ future economic benefit ▪ entity can control its use ▪ past transaction
Rules	▪ International Treaties e.g. TRIPS ▪ Legislation ▪ Common law ▪ Equity	▪ International Accounting Standards ▪ National accounting standards ▪ Generally accepted accounting principles (GAAP)

Legal discourse recognises intellectual property rights as a sub-group of intangible subject matters that warrant special treatment.[17] In relation to this treatment there are entitlements or rights which exist under certain legal regimes. One such regime is the World Trade Organisation's (WTO) TRIPS Agreement which has sought to harmonise domestic legal arrangements regarding IPR. TRIPS was developed with the overarching objective of fostering economic and social welfare. The process of harmonisation of rules under TRIPS is not dissimilar to the internationalisation of accounting standards. Both have emanated from a multi-lateral rule making body seeking consensus or standardisation in an attempt to facilitate the trade in both goods and services. TRIPS and IFRSs both offer a principles-based approach to intangibles for adoption in domestic regimes.

Accounting for intellectual property rights generally falls within the subset of accounting for assets. The special treatment or asset recognition in this case relies on the rules which govern the accounting procedures. If we consider patents as an example where legal and accounting discourse intersect, the differences become obvious. In law, the intangible is the creative and novel discovery which is granted exclusive rights for a period of time according to a patent law. In accounting, a patent only exists as an asset if it has been purchased at an arms length transaction and has future economic benefits that will accrue to the entity which can be measured reliably in monetary terms. If these criteria are not met, the expenditure would then be charged against profit. Whilst the legal right grants exclusivity, the economic right is based on exclusivity of use, that is, the ability to control the use of the patent. Even where a company may legally 'own' a patent and control its use, it may not be valued or measured as an asset for accounting purposes unless it can be demonstrated that it is probable that's it use will generate future economic benefits. Therefore, the mere purchase of a patent does not necessarily result in an asset being recorded. This issue

is further complicated by the requirement to revalue intangible assets periodically in an 'active market'. Patents by their very nature are exclusive and hence no active market exists.

A major ramification of these inconsistencies is that the investing community looks to publicly disclosed accounting information for decision making. Accounting discourse reinforces the view that accounting provides objective information by representing economic transactions as 'true and fair'. The complexity of providing information regarding the recognition and valuation of intangibles, in particular IP can be attributed, in part, to the inconsistencies of the underlying assumptions of the regimes for recognising IP. This mismatch between the legal right and the economic right creates the discourse gap which presents challenges both companies and investors.

Challenges

> Not so long ago, protecting and managing intellectual property was a fairly quiet field of endeavour not given to making headlines or causing ripples on the stock market. However in the space of a few years, IP issues have come to feature regularly as major news items and have taken their place as a key element in corporate strategy, affecting company ratings[18].

The market value of a firm and its accounting book value are rarely consistent. The primary reason for this inconsistency is said to be the market's assessment of the value of intangible items.[19] A contributing factor is the difference in fundamental characteristics of rights and assets are summarised in Table 2 below:

Table 2: Differences between accounting for intangible assets and legal requirements of IPR.

	Accounting (Assets)	Legal (IPR)
Recognition	Control An entity that controls the use of an asset and accrues economic benefits recognises that asset in the balance sheet.	Ownership
Value	Future economic benefits that are probable to accrue to the entity	Exclusivity - a notion linked to the economic concept of monopolies and markets.
Defining Characteristic	The ability to measure reliably in monetary terms	Inventiveness, novelty
Life	Based on the ability to continue to create future economic benefits	Limited to a specified time period in certain circumstances (e.g. patents)
Representation	Based on objective criteria (e.g internal generation generally not permitted)	Based on subjective criteria (e.g innovation derived from human endeavour)

The above table demonstrates the disparity in the legal and accounting perspectives. One is a legal right whilst the other is an economic right. One controls access to knowledge whilst the other explicitly controls distribution of profits. Altering the way intangibles are accounted for does not alter the fundamental characteristics of a corporation, however conversion to international accounting standards can have a direct influence the 'numbers' reported and hence affect benchmarking and possibly have effects in financial markets. Companies may find difficulty attracting investment if there is a lack of supporting economic 'stories' regarding IPR. For example, Roche which is a listed company based in Switzerland and therefore required to be IFRS compliant as part of the European Union explained to investors the significant effect of adopting IFRS.

> Roche will present to the financial community the implications of the recently published IFRS changes that are effective 1 January 2005. Since 1990, Roche has applied IFRS/IAS and is one of the largest preparers of IFRS Financial Statements in the world. The IFRS changes do not alter the economics of the underlying business transactions, however, they will increase transparency in the financial statements and improve comparability amongst companies. The announced changes are expected to have a positive net effect on Roche's operating profit and net income. As such, Roche expects an increase in net income of more than CHF 300 m for 2005 and 2006 (continuing businesses, before presentational change as per IAS 1 revised)[20].

Arguably, accounting has also been a contributing factor in the recent flurry of corporate restructuring in the pharmaceutical industry as companies strive to protect and manage patents as identifiable intangible assets in their financial reports[21]. Table 3 below summarises the mergers and acquisitions involving the top pharmaceutical companies since 2001.

Table 3: Major Mergers and Acquisitions in the Pharmaceutical Industry 2001 - 2004[22]

Year	Companies	New Business Combination
2001	GlaxoSmithKline + Block Drug	GlaxoSmithKline
	Bayer + Aventis Crop Science	Bayer
	Abbott Laboratories + Knoll/BASF Pharmaceuticals	Abbott
	Bristol-Myers Squibb + DuPont Pharma	Bristol-Myers Squibb
	Johnson & Johnson + Alza	Johnson & Johnson
	Merck + Rossett Inpharmatics	Merck
2002	Pfizer + Pharmacia	Pfizer

2003	Johnson & Johnson + Scios + Orquest	Johnson & Johnson
2004	Aventis + Sanofi-Synthelabo Fujisawa +Yamanouchi	Sanofi-Aventis Astellas

Emerging as the likely 'winners' from the internationalisation process are multi-national corporations that have a vested interest in protecting their monopolistic profits and facilitating investment though asserting both their legal and economic rights. Certain industries which rely heavily on the reporting of intangible assets in the market place (such as the 'pharmaceutical industry') have been active participants in the political processes that have resulted in global regimes that protect and enhance these legal and economic rights [23].

Concluding Comments

Accounting rests on the twin pillars of the efficiency of markets and representational faithfulness for valuation at both asset level and corporate level. In a world where a significant number of the most powerful economic entities are corporations and intangible assets like reputation and technological innovation carry enormous value, the space occupied by IP is important. Acknowledging this importance, various constituencies have sought to develop international frameworks to allow the creation, identification, protection and management of IP. IAS 38 has sought to harmonise the accounting treatment and agreements such as TRIPS has sought to standardise the legal treatment for IPR. However, these two regimes are not necessarily aligned and the contested domain of IP extends beyond the problem identified as a 'knowledge gap'. It can be viewed also as a 'discourse gap'.

Despite its importance in modern business, accounting for intangibles, in particular IP, remains a challenge for both preparers and users alike. This paper has sought to highlight the inconsistencies and challenges under a global regime for accounting for intangibles, in particular, the lack of symmetry between the different discourses in which IPR are acknowledged. This paper contributes to an extensive IP literature from an accounting perspective and seeks to highlight that accounting does not make the same type of distinctions as is evident in the plethora of legal arrangements for IP. In accounting, the distinguishing characteristics are related to financial or economic criteria. The introduction and adoption of international standards for accounting sought to address the inconsistencies within accounting and similarly TRIPS sought to address the same issue for IPR. Potential solutions may lie in the harmonisation across regimes, how this may be effected remains a challenge for policy makers in a globalised environment.

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