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From phones to football: the changing strategic focus of BT

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Abstract

For over a decade BT has been investing significant sums to shift its focus away from the provision of voice telephony towards the Internet. This shift is epitomised by the widespread availability of broadband and the company's purchase of the rights to broadcast English Premier League football games. This paper argues that its dominance in the voice telephony market funded its initial expansion into these new markets, and that broadband and sports content are mutually supportive lines of business. The paper also highlights the significant contribution that Openreach makes to the overall profitability of BT, and the challenges that exist as a result.

Keywords: BT, Internet, broadband, content

1. Introduction

Over the last year or so, BT, the UK's incumbent fixed-wire telecommunications operator (telco), has grabbed the headlines for a variety of reasons. In late 2015 it acquired EE, a mobile operator, while engaging in an increasingly acrimonious debate regarding its continued ownership of Openreach – the UK's primary infrastructure provider. Not only did this criticism highlight the key role that Openreach plays within the UK's broadband market, but also its significant financial contribution to its parent company. The size of this contribution may surprise many, but it reflects the important role that broadband plays within the UK economy as well as the key role that Openreach plays as the provider of 'last mile' infrastructure across the country. And, more recently, accounting irregularities at BT's Italian subsidiary resulted in a large write-off and a dramatic fall in BT's share price (Fildes, 2017a).

The significant financial contribution of Openreach to the profitability of BT is one of the issues that this paper highlights as it explores the transformation of BT from a telecommunications company that provided a limited range of services to one that has broadband at the heart of its operations. We chart the growth of BT as a provider of Internet access and illustrate its increasingly important role as a content provider by detailing the investments, which are largely sports-related, it has made in this area. We argue that these should not be viewed as separate markets or activities but rather as being part of an integrated converged strategy.

With this in mind, the rest of the paper is structured as follows: the notion of convergence is outlined in section 2 before BT is introduced in section 3. BT's Internet infrastructure-related activities are detailed in section 4. Openreach is the focus of section 5, and content of section 6. Key issues are discussed in section 7 and conclusions drawn in section 8.

2. Convergence

Convergence is a multi-faceted phenomenon. It is the blurring of the boundaries of industries such as telecommunications, consumer electronics and content that were traditionally separate (Basole, Park and Barnett, 2015; European Commission, 1997; Hacklin, Marx and Fahri, 2009; Henten and Goode, 2010, Zhang, 2002). As the traditional boundaries between industries weaken and convergence occurs, the business models developed in one industry clash with those developed in another as companies seek to enter new markets (Basole, Park and Barnett, 2015; Zhang, 2002). As a consequence, convergence is disruptive – it will have an impact on competition and the structure of markets as new business models emerge and companies enter the market (de Bijl and Peitz, 2008; Henten and Goode, 2010; Suh and Lee, 2017; Weber, 2007).

Technological change has facilitated the blurring of industry boundaries. Palmberg and Martikainen (2006) identified two technological changes underpinning convergence, namely, the digitalisation of telecommunication networks that started in the 1970s and the advent of the Internet. They argue that the Internet has had a significant impact on telecommunications firms through, for example, necessitating mobile services to be 'IP-compatible' and elevating in importance Internet-related technologies. While Darby (1999) and Weber (2007) explore convergence in the context of mobile telecommunications, it is also evident with regards to fixed-wire as well. de Bijl and Peitz (2008) assert that fixed-wire incumbent operators will eventually move to an Internet Protocol (IP) based infrastructure, enabling them to compete against rivals such as cable-TV operators through offering new services such as television. By using an IP-based infrastructure, the link between a specific network and service is broken, enabling the same underlying infrastructure to deliver a multitude of different services. These services could be grouped together and sold as a bundle

to customers, or sold separately depending on the business model adopted by the telecommunications company.

Convergence is, naturally, not without its problems. Companies may struggle to combine together technologies (Curwen, 2006), or cope with the impact that convergence subsequently has on the markets in which they compete (Palmberg and Martikainen, 2006; Weber, 2007). Moreover, as the boundaries between industries blur and then dissolve, regulatory regimes based on hitherto separate industries need to be rethought (de Bijl and Peitz, 2008; European Commission, 1997; Zhang, 2002). Swanson (2017) argues, for example, that the Federal Communications Commission needs to change structurally to reflect the realities of convergence that was faster, deeper and more extensive than it anticipated.

3. British Telecom

BT is the largest telco in the UK. According to the most recent figures that are available covering the third quarter of 2016, BT's share of the fixed-wire voice retail market was 45% and it accounted for one-third of fixed broadband connections, figures that have been more or less unchanged over the course of the year (Ofcom, 2016b, 2017a). While BT is the largest provider of fixed-wire telecommunications services in the UK, the fact that it is no longer the only provider reflects the liberalisation of the industry that began in the early-1980s as new technologies emerged and new operators were licensed (Curwen, 1997; Parker, 2009). The early years of liberalisation overlapped with the privatisation of BT, a process that saw the UK government reduce its stake in the company, beginning with the initial flotation (IPO) in December 1984 and ending with the sale of its residual stake in July 1993 (Parker, 2009).

As befits an incumbent telco in a large market that was among the first to be privatised, the interplay between BT and the development of a competitive market has been explored in the literature. Parker (2009) examined the privatisation process while Thatcher (1999) explored the subsequent development of competition and the regulatory regime. Williams and Taylor (1994) and, more recently, Lal, Pitt and Strachan (2004) investigated how BT responded to the changing regulatory and competitive circumstances in which it found itself. The implications of specific regulatory decisions for BT have also been explored, with particular attention of late being placed on broadband and the implementation of 'functional separation' by BT – see, for example, Cadman (2010).

As other countries around the world liberalised their telecommunications markets, this provided BT with an opportunity to expand into new geographical markets. BT internationalised its operations through a combination of foreign direct investment and the formation of alliances (Curwen, 2001; Chan-Olmsted and Jamison, 2001). Around the turn of the millennium, however, this strategy came unstuck. BT was unable to form a stable international joint venture with, initially, MCI and then AT&T (Curwen, 2001; Curwen and Whalley, 2004). In addition, a combination of significant 3G license costs in Europe, coupled with the need to buy-out its partners from its joint ventures (Curwen and Whalley, 2004), resulted in BT's net debt rising substantially to almost £28 billion in March 2001, a figure described as being "unsustainable" by the company (BT, 2001). To address its large net debt, BT opted to spin-off its wholly-owned mobile operations in Europe, branded as mmO₂, while selling the stakes it held in a wide range of joint ventures (BT, 2001).

When this retrenchment was complete, BT was left largely as a UK-focused business. In its 2002 annual report, BT states that 89% of group revenues were generated in the UK (BT, 2002). In addition, uniquely among the larger European incumbents, BT no longer owned a mobile subsidiary. While the annual reports of the period illustrate the range of restructuring related initiatives being undertaken by BT, it is only with the company's 2002

annual report that the significance of the broadband market becomes clear – a key component of the three-year strategy that the company outlines in its 2002 report is “to put broadband at the heart of BT, expand the market for broadband services and create a media-enabled network” (BT, 2002: 8).

To investigate whether BT has been successful in placing broadband at the heart of the company, this paper adopts a longitudinal case study approach (Saunders, Lewis and Thornhill, 2000; Yin, 1994). It draws on documents published by the company – annual reports, filings with the Securities and Exchange Commission (SEC) in the United States and press releases – as well as material from newspapers, the trade press and analysts.

4. Internet

Since BT launched its first Internet access product in 1996, considerable changes have occurred. The Internet has got faster – moving from dial-up to broadband and now super-fast broadband – and the technologies used to provide access have changed. As a result, untangling BT’s involvement is not straightforward. To help chart how BT’s involvement has evolved, this section is divided into three sub-sections: dial-up, broadband and super-fast broadband. These sub-sections reflect the changes in Internet access speeds that have occurred since the mid-1990s, from relatively slow to extremely fast respectively.

Dial-up

In early 1996, ‘BT Internet’ was launched as a mass market dial-up service (BT, 1996). Just over two years later, BT was claiming to be the UK’s largest Internet Service Provider (ISP) (BT, 1998). Not only did this growth reflect the widespread interest in the Internet that was evident at the time, but also the company’s strategy of forming partnerships with content providers. For example, BT formed ‘LineOne’ with United News & Media and News International and announced a web-TV service with Microsoft (BT, 1998).

The profusion of ventures, both nationally and internationally, eventually necessitated a reorganisation. As part of the broader restructuring that occurred at the turn of the millennium, BT established ‘BTOpenworld’ (BT, 2000). This company brought together BT’s various Internet-related businesses – ISP and portals – and the content-related joint venture with BSkyB into a single company (BT, 2000). This new company also included its overseas ISP businesses. The extensive nature of this restructuring resulted in BTOpenworld being one of just four divisions in BT (BT, 2001). In other words, the restructuring highlighted the importance of the Internet to BT. However, BTOpenworld did not remain as a separate division for long as it was merged into BT Retail in January 2003 when, once more, BT was reorganised (BT, 2003).

Aside from claiming to be the UK’s largest ISP, it is not clear how many subscribers BTOpenworld managed to attract as such details are missing from successive annual reports. However, the 2002 annual report claims that BTOpenworld had 1.75 million customers, with more than one million of these being users of its narrowband service (BT, 2002). The emergence of broadband inevitably resulted in fewer dial-up customers although it was not until late 2013 that BT finally turned off its dial-up service (BBC, 2013). While 800,000 customers still used dial-up as recently as 2010, the figure had dropped to just 1,000 by the time the service was terminated.

Broadband

BT started to upgrade its telephone exchanges to provide copper-based DSL broadband

services in 1999, and by the end of March 2000 it had upgraded more than 400 exchanges across the country (BT, 2000). This heralded the start of a significant investment programme that ultimately resulted in most, but not all, residential and business users having access to broadband. The number of upgraded exchanges increased over time from, for example, 839 in March 2001 to 2,465 in March 2004 (BT, 2001, 2004). While this indicates the extent to which BT invested to improve its infrastructure, it does not indicate what proportion of households and business premises were able to access these upgraded exchanges. In March 2001, 50% of households were covered by upgraded exchanges (BT, 2001). With the upgrading of just 67 additional exchanges, this figure increased to 67% in March 2003 (BT, 2003). The figure increased once again to 90% in March 2004 although this was only achieved through a more than doubling of the number of upgraded exchanges (BT, 2004). In March 2005, the upgraded 4419 exchanges provided DSL-based services to 97% of homes and business premises (BT, 2005). By March 2011, the proportion of households and business premises covered had increased once more, albeit by just 2% to 99% (BT, 2011).

That coverage does not increase in proportion to enabled exchanges reflects the fact that population densities vary, with exchanges in urban areas covering more households and business premises than their counterparts in rural and remote areas. Consequently, the latter are economically unattractive. To facilitate the expansion of DSL-based services in these areas, financial assistance has been provided to BT to ensure that the relevant upgrading occurs – for example, in February 2004 BT received £10 million from ONE North East to upgrade 181 exchanges in the north-east of England (BT, 2004; Ferguson, 2004), while in April 2005 it won a £16.5 million contract from the Scottish Executive to upgrade 378 exchanges in Scotland (BT, 2005).

In parallel with the increasing availability of broadband infrastructure, BT also launched a series of broadband products. As can be seen from Table 1, BT announced in April 2000 that it would launch a high-speed Internet product by July of the same year (BT, 2000). The subsequent report states that BTopenworld had 25,000 broadband subscribers (BT, 2001). Since then, BT has sought to compete in the market through offering a wide range of services. For example, it joined with Microsoft in April 2004 to launch ‘BT Connected & Complete’, a service designed to provide broadband and IT products to small businesses (BT, 2004). BT has also launched quite a few broadband access products onto the market, not least to enable it to target different types of consumers. In 2004, for example, BT launched two new broadband products that targeted different parts of the market: in January 2004 it launched a 1 Mbps (megabits per second) service branded as BT Yahoo! Broadband while just a few months later a slower broadband service branded as BT Broadband Basic was announced (BT, 2004).

Table 1: Illustrative broadband services, 2000/08

Year	Event
2000	April – BTopenworld announces a mass market broadband portal and high-speed Internet service will be available by July
2002	April – ‘BT Broadband’ launched
2003	March – BTopenworld speeds described as varying from 512 kbps to 2 Mbps September – ‘BT Yahoo! Broadband’ launched
2004	January – 1 Mbps service launched by BT Yahoo! Broadband January – existing business orientated services rebranded as ‘BT Business Broadband’ March – ‘BT Broadband Basic’ launched with speeds of 512 Kbps April – launch ‘BT Connected & Complete’ with Microsoft October – ‘BT Broadband Voice’ launched
2005	January – combines together existing online payment services to form ‘BT Buynet’
2006	January – ‘BT Business Broadband Voice’ launched June – ‘BT Total Broadband’ launched that combines several services into a single hub October – simplified BT Yahoo! product range launched
2007	March – launches ‘BT Home Advisor’ to provide advice and support
2008	March – ‘BT Total Broadband’ has speeds of up to 8 Mbps

Source: relevant BT annual reports

While the developments outlined above are organic in nature, BT has also acquired a rival broadband provider in the form of PlusNet. BT announced its bid for PlusNet in November 2006, acquiring the company just a few months later for £66 million (BT, 2007). Given that at the time of the purchase PlusNet had only 200,000 or so customers, its acquisition by BT was arguably surprising and expensive. It has, however, been suggested that the purchase was motivated by PlusNet’s skill in combining a low-cost, reliable service and loyal customers (Stokdyk, 2006). Subsequent to its purchase by BT, PlusNet continued to operate as an independent company.

Super-fast broadband

The shift towards the provision of substantially faster Internet provision by BT arguably began in late 2008 when the company commenced a fibre trial at Ebbsfleet Valley in Kent (BT, 2008). From August onwards, BT would install fibre-based, as against copper-based, infrastructure to the site as it was developed, thereby gaining insight into the construction and operation of a fibre network. It was not until the following summer that the commitment of BT to fibre was clear for all to see – in July the company announced a £1.5 billion investment in the technology (BT, 2009). By 2012, BT stated, fibre would be available to 40% of households and business premises, delivering speeds of up to 100 Mbps (BT, 2009).

To achieve this target, BT launched ‘BT Infinity’ in January 2010 (BT, 2010). The subscribers of this product would enjoy download speeds of up to 40 Mbps. The 2010 annual report suggested that BT would commit an additional £1 billion to the roll-out of fibre “assuming an acceptable commercial environment” (BT, 2010: 12). This must have been the case, for in the subsequent annual report BT describes its fibre investment as totalling £2.5bn (BT, 2011). The faster access speeds available to Infinity customers was attractive to the target market: by March 2011 there were 144,000 subscribers, a figure that had more than trebled to 500,000 by March 2012 (BT, 2011 and 2012).

As the objective stated in the 2011 annual report was for fibre to pass two-thirds of UK premises by the end of 2015 (BT, 2011), different configurations of fibre would be used. On some occasions fibre would be brought directly to the premises, while on other occasions it would be brought to the street cabinet and then copper used to connect to the premises. BT identified 12 locations to trial the delivery of fibre to premises with the intention of launching

such a service commercially in early 2011 (BT, 2011). Another trial, this time providing fibre to the basements of premises, was announced in December 2014 (Wood, 2014). This would provide fibre, with speeds of up to 80 Mbps, to two multi-dwelling premises in the City of London where alternative network configurations were not possible.

From mid-2015 onwards, BT announced a series of trials of g.fast, a technology that would squeeze faster speeds out of its existing copper infrastructure. Given the extensive nature of this infrastructure, using it to provide super-fast broadband is clearly an attractive proposition in terms of the speed of deployment (Jackson, 2015a; Wood, 2016) and, presumably, the cost. In these trials, which were to be found across England (Lennighan, 2015a and 2015b; Jackson, 2015b and 2016a), speeds were initially capped at 330 Mbps although it was expected that this would subsequently increase to 500 Mbps (Jackson, 2016). A report in May 2016 suggested that download speeds would be slightly lower than had previously been reported at 300 Mbps, and alluded to more trials before the new technology would be available commercially (Jackson, 2016b). The trials demonstrated, among other things, that the technology was able to deliver speeds of 300 Mbps, but only over relatively short lengths of copper (Jackson, 2016c), which clearly has implications for its deployment. The number of trials was further expanded in September 2016, a period when BT's continued ownership of Openreach was being questioned, to include for the first time locations in Scotland (Jackson, 2016e). The expansion would occur at the start of 2017, and when completed in just a few months the trials, which will eventually number 17 in total, are expected to cover 138,000 premises in total (Jackson, 2016e).

5. Openreach

Openreach operates the 'last mile' of the network owned by BT – that is, the part of the network that is between the telephone exchange and the end-consumer. Although owned by BT, it was established in September 2005 as a separately managed unit within the company in response to the strategic review of the telecommunications sector that was launched by Ofcom, the industry's regulatory body, in December 2003 (Ofcom, 2004). While the origins of the strategic review and its outcome have been extensively discussed elsewhere – see, for example, Whalley and Curwen (2008). The key issue here is that Openreach plays a central role in providing broadband services. Openreach was mandated with the provision of a range of services to companies, both elsewhere within BT as well as its rivals, on the same terms (Ofcom, 2005). Thus, it generates revenues from both BT as well as the rivals to BT such as TalkTalk.

Given the key role played by Openreach in the broadband market, the company has unsurprisingly been criticised by those companies that rely on it. This criticism became particularly vocal in early 2015 when BT announced its £12.5 billion purchase of EE, the UK's largest mobile telecommunications operator (BT, 2015a). For a detailed discussion of this purchase see, for example, Curwen and Whalley (2016). As part of its investigation into the takeover, the Communications and Market Authority – the competition regulator – sought the views of industry participants (Thomas, 2015a). Rivals expressed their concern that the takeover could reduce the availability of fibre (Thomas, 2015b). Concerns were also expressed by rivals as part of their response to Ofcom's 'Digital Communications Review', an industry-wide review that commenced in May 2015 (Ofcom, 2015a and 2016a). Quite simply, rivals called for the Communications and Market Authority to investigate Openreach (Wood, 2015b), arguing that Ofcom lacked the necessary powers to address the shortcomings that they argued characterised the broadband market (TeleGeography, 2015; Thomas, 2015c). Some politicians also criticised Openreach, calling for Openreach to be divested by BT (Bryant, 2015; Shapps, 2016).

To forestall these criticisms, BT announced a series of new broadband-related investments and sought to defend the existing regulatory regime (BT, 2015b; McIntosh, 2015b; Wood, 2015c). Presumably much to the relief of BT, Ed Vaizey, the communications minister, stated that he was sceptical of the need to separate Openreach from BT (Thomas, 2015d) but he was also quoted as stating that he would accept the decisions reached by Ofcom (Thomas, 2015e). Although a consensus emerged by mid-October 2015 that BT would not be required to divest Openreach (McIntosh, 2015c) it was not until early in the following year that Ofcom reported its initial conclusions. Ofcom opted to retain BT's ownership of Openreach with the proviso that its governance regime should be strengthened (Ofcom, 2016a). Ofcom also stated its intention to improve quality across the whole sector (Ofcom, 2016a) and began to do so in March 2016 when it announced the conclusion to its review of the business services market (Lennigan, 2016).

In July 2016 Ofcom published its proposals for strengthening the governance of Openreach (Ofcom, 2016c), with its preferred option being 'legal separation' – Openreach would become a wholly owned subsidiary of BT with its own board, employees and assets, and would gain greater control over its budget. Ofcom also announced that it was developing a more detail proposal that would be submitted to the European Commission in due course. BT's rivals were, unsurprisingly, disappointed by the announcement and started to lobby for change – the 'Fix Britain's Internet' campaign, supported by TalkTalk and Vodafone among others, was launched just after Ofcom made its announcement (Jackson, 2016d). For its part, BT complained about the campaign and joined with Virgin Media to highlight the scale of the investment that they have made in their networks in recent years (Fildes, 2016; Williams, 2016).

Although BT strengthen the governance of Openreach with the appointment of its first chairman in late November 2016 (BT News, 2016g), just a day later Ofcom announced that it would be pressing ahead with the formal process of legally separating Openreach from BT (Ofcom, 2016). In early February 2017, BT further strengthened the board of Openreach with the appointment of two independent directors (BT News, 2017) only for Ofcom to state that the proposed changes did not go far enough and suggesting that it would take its plans to the European Commission in 2017 (Fedor, 2017). The threat of involving the European Commission undoubtedly raised the pressure on BT, for just over a month later BT agreed to legal separation (Ofcom, 2017b).

6. Content

Table 2 charts the evolution of content provision by BT. Perhaps surprisingly, the table highlights that BT has been involved in content provision for almost a decade. In December 2006, the company launched BT Vision, a service enabling customers to watch television over their broadband connection (BT, 2007). By March 2008, BT was claiming that it had attracted 214,000 subscribers to BT Vision (BT, 2008), a figure that had almost doubled a year later. However, subsequent growth was less spectacular – by 2010 the customer base of BT Vision had grown to 467,000 while the figure for the 2012 financial year was 700,000 (BT, 2010 and 2012). These relatively low figures, especially when compared to the number of Sky subscribers and BBC licence fee payers, highlights the scale of the challenges facing BT as it entered the TV market.

When BT Vision was launched in December 2006, it announced that its customers would have access to FA Premier League and Scottish Premier League games from the start of the 2007/ 2008 season (BT, 2007). This was possible through the deal struck with Setanta. At the same time, BT highlighted the series of deals it had signed with a range of content providers such as Warner Brothers, Disney and BBC Worldwide (BT, 2007). These deals

were clearly intended to make its fledgling service more attractive to customers, especially given the extensive content available elsewhere.

Since then BT has, with varying degrees of success, sought to develop content. In early 2009, details of ‘Project Canvas’ emerged. The project, which initially brought together the BBC, ITV and BT before other companies joined, would provide catch-up and on-demand TV through a set-top box (BBC, 2010; Sweney, 2009a). It was stated at the time that the service would be open to all broadcasters as a means to distribute their content. Inevitably, Sky complained about the initiative (Sweney, 2009b). After various technical and regulatory issues were resolved, ‘Project Canvas’, which had been rebranded as ‘YouView’, launched in July 2012 (YouView, 2012), with the service managing to attract 400,000 subscribers by May 2013 (YouView, 2013). In early 2015, all seven of YouView’s shareholders agreed to continue to support the company for a further five years (YouView, 2015).

Table 2: Content

Year	Event
2006	December – BT Vision launched
2008	December – details of a project with content providers (BBC, ITV etc.) are revealed
2009	December – ‘Project Canvas’ is given conditional approval by the BBC Trust
2010	March – Ofcom announces that Sky Sports 1 and 2 should be available to other companies at prices it sets September – ‘Project Canvas’ established, and rebranded as ‘YouView’
2013	January – acquires rights to broadcast 800 hours of live women’s tennis coverage per year February – acquires UK and Ireland operations of ESPN May – BT Sports acquires rights to MotoGP from 2014 for five years August – BT Sports launched with 3 channels (Sky Sports 1 & 2, ESPN) August – acquires ESPN Global Limited for £30m November – acquires UEFA Champions League and Europa League games for £897m
2014	February – ‘YouView’ set-top boxes launched
2015	February – acquires rights to 42 Premier League games per season for £960m March – Netflix available through BT TV March – acquired rugby rights June – change in pricing regime of BT Sports for BT broadband customers June – acquires rights to broadcast British version of AMC July – interim consultation on ‘wholesale must offer’ of Sky Sports 1 & 2 announced August – acquires 210 days of cricket coverage September – supplementary consultation on ‘wholesale must offer’ announced November – review of ‘wholesale must offer’ of Sky Sports 1 & 2 concludes December – announces deal to broadcast 2016 BDO World Professional Darts championship
2016	January – extends FIA World Rally Championship deal for three years March – announces that BT Sports will be host broadcaster for the international hockey championship being held in London later in the year May – announces YouTube deal to distribute content May – extends agreement to broadcast live women’s tennis, offering up to 52 tournaments a year June – extends exclusive live broadcast deal with Bundesliga November – announces a series of improvements to YouView
2017	January – announced changes in prices for BT Sports March – retains European football rights paying £1,200 million

Source: relevant BT annual reports; BBC (2010), BBC Sports (2012, 2013a, 2013b, 2015), BT News (2013, 2015d, 2016a, 2016b, 2016c, 2016d, 2016e, 2016f), Durrani (2013), ESPN (2013), Fildes (2017b), Garside (2015), Mance (2015a, 2015b), McIntosh (2015a), Ofcom (2010, 2014, 2015b, 2015c), Press Association (2015), Rees (2012), Sweney (2009a, 2009b), YouView (2012, 2014, 2015)

Beginning in mid-2012, BT sought to acquire sports rights. In June 2012, it paid £246 million per season to acquire 38 Premier League matches each season from 2013/2014 to 2015/2016 inclusive (BBC Sport, 2012). Importantly some of these games were ‘first pick’, thereby enabling BT to show high profile games like the Manchester or Liverpool derbies (Ruddick, 2012). In contrast, Sky managed to secure 154 live games per season, albeit through the payment of £760 million a year (BBC Sport, 2012). Later in the same year, BT Sports paid £158 million for Premiership rugby rights (Rees, 2012). This sum, which would enable BT to broadcast rugby for four seasons from 2013/2014, was 50% higher than the previous deal between Premiership Rugby and ESPN/Sky (Rees, 2012). The contract was extended in March 2015 (Rumsby, 2015), and while it was not clear at the time of the announcement exactly how much had been paid, it was alleged that “significantly more” was paid compared to the old deal (Press Association, 2015).

Just a few months after outbidding ESPN for Premier League football rights, BT acquired ESPN’s UK and Ireland operations. The deal allowed BT to gain access to additional football rights in Scotland, Germany and Europe as well as several different sports in the United States (ESPN, 2013). BT further expanded its sports portfolio in May 2013 when it won the rights to broadcast MotoGP for five years from 2014 (BBC Sport, 2013a). The financially most significant deal of 2013 occurred in November when BT paid £897 million to secure live Champions League and Europa League games for three years from the 2015/2016 season onwards (BBC Sport, 2013b). BT retained its broadcasting rights for the Champions League in March 2017, paying a total of £1,200 million to be able to broadcast the games from 2018 until 2021 (Fildes, 2017b).

In February 2015, BT reaffirmed the importance of football sports rights when it agreed to pay £960 million to broadcast 126 Premier League games over three seasons (BBC Sport, 2015). When combined with the sum paid by Sky, this represented a significant increase – in the previous three-year deal, BT and Sky together paid £3,018 million, while under the terms of the new deal they would pay £5,136 million (BBC Sport, 2015). Prior to acquiring these rights, the CEO of BT indicated that the company would be ‘financially disciplined’ (Thomas and Mance, 2014), though the substantial increase in the sum paid casts doubt upon whether this was the case.

BT added another sport to its portfolio when, in August 2015, it paid £80 million for the opportunity to broadcast Australian cricket (McIntosh, 2015a). As part of this deal, BT Sports gained the rights to broadcast the 2017/2018 Ashes series with England (BT, 2015d). Interestingly, Sky controls the rights to broadcast the Ashes until 2019 with the consequence that anyone wanting to watch England/Australia games would need to subscribe to both BT Sports and Sky (Wood, 2015a). One analyst, cited in the Financial Times, described this deal as BT’s first “meaningful effort to diversify beyond football” (Mance, 2015b). Given the sums spent on sports other than football, this seems a little unfair though it may reflect the widespread geographical attraction of cricket.

The large sums paid by BT for sports-related content has inevitably grabbed the headlines, thereby overshadowing its rare foray into non-sports content that was announced in June 2015. While (financial) details are lacking, BT has signed an exclusive deal to distribute the British version of the US channel AMC (Mance, 2015a).

While BT has invested a substantial sum to acquire sports rights, it has also benefited from regulatory decisions that enable it to broadcast Sky Sports 1 and 2. In March 2010, Ofcom concluded that Sky, through control of content which in this case covered films and sporting events, possessed ‘market power’ in the wholesale of certain TV channels (Ofcom, 2010). To address this issue, Ofcom decided that Sky should make Sky Sports 1 and 2 available to other companies. It also set the price at which this should occur, noting that this

was unlikely to occur naturally through commercial agreements being reached (Ofcom, 2010). Thus, BT could offer Sky Sports 1 and 2 to its customers. While Ofcom reviewed its decision in 2014/15 (Ofcom, 2014 and 2015b) its conclusions, which were announced in November 2015, removed the requirement for Sky to make available these two channels to rivals on a wholesale basis (Ofcom, 2015c). While companies like BT and Virgin Media were, quite naturally, disappointed with this decision (Sweeney, 2015), Ofcom argued that this was due to Sky making the channels available to others on commercial terms. Interestingly, Ofcom noted that BT Sports lacks the range of content necessary for it to be an effective competitor against Sky.

For many years, broadband customers enjoyed BT Sports for free. Indeed, when promoting its various sports-related content in May 2013, BT highlighted how this content was free to its existing broadband customers (Durrani, 2013). However, in June 2015, this changed – BT announced that, commencing in August, broadband customers would have to pay £5 per month for this service, though BT Sports would remain free to those subscribing to a BT TV service (Garside, 2015). This proved controversial, with many customers complaining about how the change was implemented and Ofcom stepping in to clarify the rights of consumers (Wilson, 2015). While the switch to charging consumers was always going to be challenging, some analysts did suggest that BT was probably encouraged by the emergence of low tariffs at rival content providers such as Netflix (Thomas and Mance, 2015).

In January 2017, BT announced another set of price increases, which when implemented in August of the same year would see all BT TV customers – other than those subscribing to the top package – made to pay for BT Sports (Staples, 2017). While some commentators described the price increases as ‘modest’ and noted that BT’s rivals would be more likely to raise their own prices (Bond, 2017), others claimed that the lack of content available from BT might result in some consumers deciding not to pay for BT Sports.

7. Discussion

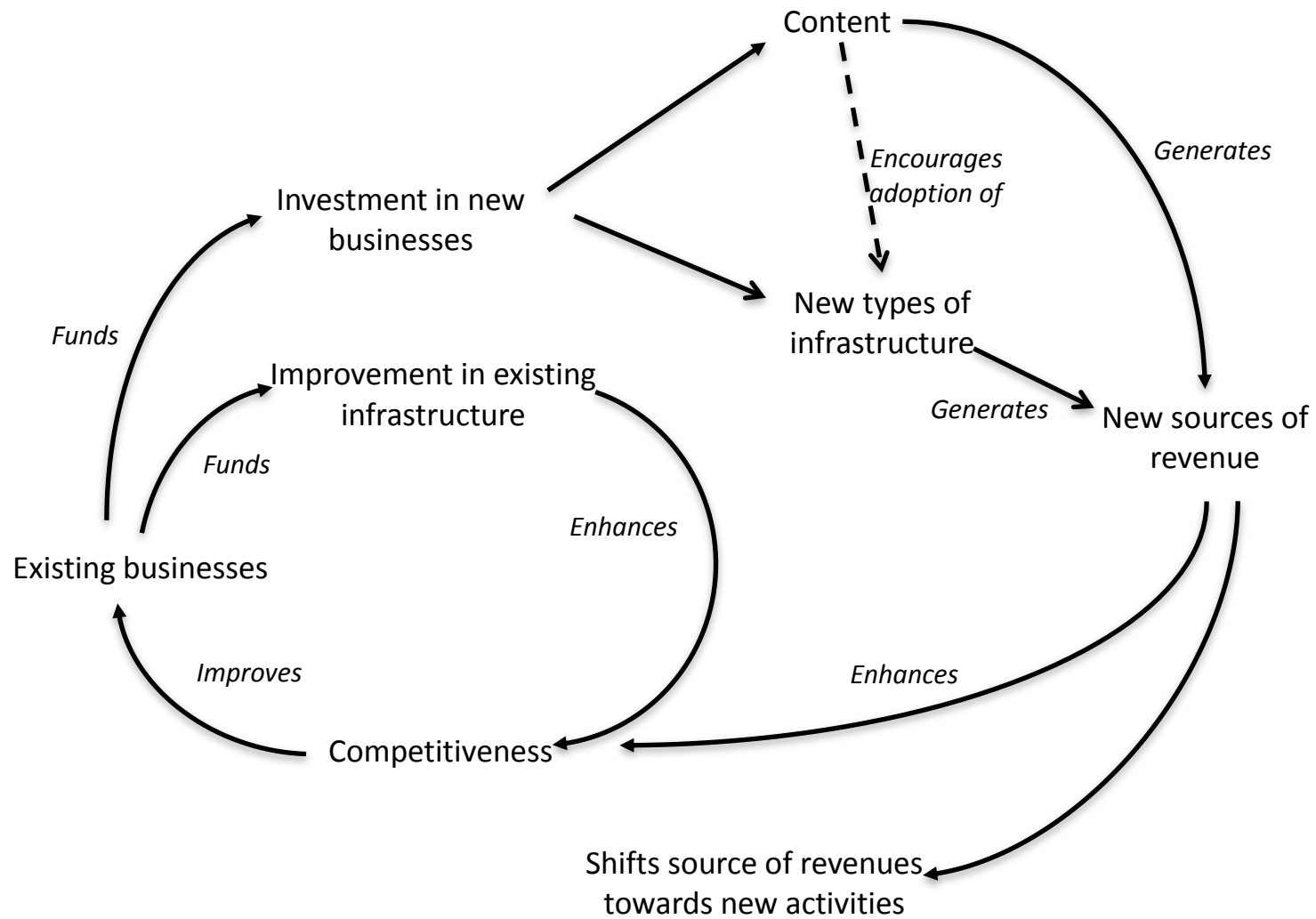
How successful has BT been at reinventing itself? For several years BT provided details of ‘new wave’ revenues in its annual reports. If we take this at a starting point, then BT has made significant inroads as part of its transformation – ‘new wave’ revenues grew from 14% of total revenues in 2003 to 39% in 2009 (BT, 2003 and 2009). This in turn, reflects the growth in its customer base. By March 2009, BT had 4.8 million broadband connections and 423,000 BT Vision customers (BT, 2009). Although the manner in which BT presents its accounts changed in 2010, they do indicate the continued growth of the company: after its launch in 2010, the number of fibre customers, for example, reached 869,000 by 2014 while BT Sport had 3 million customers in 2015 (BT, 2014, 2015c). By 2014, BT accounted for one-third of all fibre, DSL and cable Internet connections (BT, 2014).

This success has been achieved through significant and sustained investment. This investment has seen BT improve the coverage and then quality of its copper-based broadband infrastructure, while more recently a £2.5 billion programme has seen fibre extensively deployed across the UK. After initially developing a range of services, BT has focused on acquiring content, primarily in the form of sport rights. By bundling content with infrastructure, an incentive was provided for customers to subscribe to the broadband services offered by BT, although a series of recent decisions to charge for BT Sports suggests that BT also views content as a revenue stream in its own right.

Nevertheless, the initial investment in both infrastructure and content would not have not been possible if BT had not held a dominant position in the fixed-wire market. As a result of the divestment of mmO₂ in 2001, BT was left with a series of businesses largely focused

on the UK, with the fixed-wire market providing the majority of the company's operating profits (BT, 2001). These profits enabled BT to invest in infrastructure and content. BT has sought to improve its infrastructure before offering services: it started offering broadband services in 2002 before moving into content provision in 2006, while it launched fibre in 2010, two years before it started to acquire sports rights in 2012. This mutually reinforcing relationship between old and new revenues sources is shown in Figure 1.

Figure 1: Transforming BT



Two conclusions can be drawn from Table 3, which charts the financial performance of BT between 2006 and 2016. Firstly, those parts of the company that provide broadband and Internet services to households and businesses – BT Retail, BT Consumer and BT Business – have steadily improved their financial performance. This offsets declines elsewhere, namely BT Wholesale. Secondly, notwithstanding the success of BT in generating ‘new wave’ revenues, the financial contribution of Openreach remains significant – Openreach contributed 60% of EBITDA in 2009 and has contributed more than 40% in each year since 2012. While the recent purchase of EE should reduce this percentage when a full year’s contribution has been made, it is clearly the case that Openreach is a significant generator of EBITDA for BT.

While the uncertainty surrounding the ownership of Openreach has been resolved, at least for the next couple of years, with the implementation of legal separation, there is still a clear strategic imperative for BT to diversify its sources of EBITDA. As legal separation implies a divergence of strategic alignment between BT and Openreach, not least because the latter is required to consult with its customers such as TalkTalk and Vodafone who are also competitors of BT, the need to develop new sources of revenue comes to the fore. As the development of new products and services takes time, can be costly and involves a degree of uncertainty it is reasonable to assume that BT will combine such activities with a continued emphasis on its convergence strategy.

That said, legal separation will complicate the process of co-ordinating the two halves of such a strategy. Not only will Openreach now need to consult with its key customers and take their views into account, but a greater emphasis on fibre could reduce the financial contributions that it makes to BT. It is not clear, however, what impact lower payments by Openreach to BT will have on its content strategy – BT has denied claims that is using Openreach to fund the purchase of sports content (Ferguson, 2016; Fildes, 2017c).

Although this paper has focused on BT, it is possible to use the insights gained to make a series of broader points that shed light on the nature of convergence. As noted in Section 2, convergence is facilitated by technological change that results in a weakening of the boundaries between industries. As a result, the impact of convergence is disruptive. BT has struggled to leverage its significant position in existing markets – fixed telephony and broadband – to expand into a new market, namely content. Moreover, BT has struggled even though it has spent considerable sums acquiring the broadcasting rights to a range of different sports. Not only are these difficulties to be expected, especially when the well-entrenched position of Sky, which is arguably BT’s main rival (Ofcom, 2015c, 2016d), is taken into account, but it suggests that the attractiveness of its business model remains unclear to many would-be customers. As Sky also offers broadband access services, a situation has arisen where two similar yet different business models, which combine broadband with content, albeit to different degrees, are competing for customers.

That neither business model – BT’s ‘broadband with content’ or Sky’s ‘content with broadband’ – has emerged victorious as yet may reflect their nascent character. This echoes Curwen and Whalley (2017) who, drawing on experiences in the United States, suggest that the timeframe in which converged companies emerge can be quite long. One factor that may contribute to the protracted emergence of such companies is that neither of the business models of BT nor Sky possess that vital component that enables them to gain a competitive advantage over the other sufficient to tip the market in their favour. It is worth noting, however, that Curwen and Whalley (2017: 53) state that “network operators do not have good records when it comes to providing content”. If this is also the case for the UK, then it would imply that Sky’s business model, which is focused on content, will emerge victorious.

Table 3: The financial performance of BT, 2006-2016

	Year										
	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
<i>BT Retail</i>											
EBITDA £m	1,226	1,357	1,495	1,585	1,777	1,784	-	-	-	-	-
Operating profit £m	814	912	1,050	1,159	1,318	1,341	-	-	-	-	-
<i>EE¹</i>											
EBITDA £m	-	-	-	-	-	-	-	-	-	-	261
Operating profit £m	-	-	-	-	-	-	-	-	-	-	85
<i>BT Consumer</i>											
EBITDA £m	-	-	-	-	-	-	882	968	833	1,031	1037
Operating profit £m	-	-	-	-	-	-	630	720	614	813	831
<i>BT Business</i>											
EBITDA £m	-	-	-	-	-	-	1,098	1,047	1,037	1,041	1076
Operating profit £m	-	-	-	-	-	-	789	802	892	861	878
<i>BT Global Services</i>											
EBITDA £m	700	735	861	261	457	593	835	832	932	1,047	1048
Operating profit £m	85	70	117	-515	-358	-141	134	207	326	528	518
<i>BT Wholesale</i>											
EBITDA £m	1,447	1,500	1,395	1,316	1,353	1,356	667	620	614	561	542
Operating profit £m	609	592	502	670	673	697	408	366	369	337	212
<i>Openreach</i>											
EBITDA £m	2,028	1,927	1,911	1,996	1,960	2,132	2,618	2,642	2,601	2,600	2664
Operating profit £m	1,228	1,220	1,222	1,218	1,104	1,255	1,202	1,214	1,195	1,348	1363
<i>BT Group</i>											
EBITDA £m	5,517	5,633	5,784	3,301	5,162	5,557	6,034	6,143	6,116	6,271	6,580
Revenue £m	19,514	20,223	20,704	21,390	20,859	20,076	19,397	18,339	18,287	17,851	18,909
Net debt £m	7,500	7,914	9,460	10,361	9,283	8,816	7,797	9,082	7,028	5,119	9,842
Openreach EBITDA as % of BT total	36.75	34.20	33.03	60.46	37.96	24.18	43.38	43.00	42.52	41.46	40.48

Note – 1, For the period 29 January to 31 March 2016. *Source:* relevant BT annual reports

This should not, however, be interpreted as suggesting that there has been no disruptive impact emanating from the convergence of broadband and content markets. BT has increased the cost of (primarily) sports related content in the UK, which has not only forced Sky to pay more but also encouraged the further development of its broadband services. Convergence may also have encouraged Sky to play a more active role in the discussions surrounding the future of Openreach than would have otherwise been the case, a development that hints at another broader point, namely, the role of regulation. Although some of the earlier discussions of convergence such as, for example, European Commission (1997) and Zhang (2002), mention regulation, this is often overlooked in later discussions that focus more on the technological drivers of convergence or on the business models that are emerging.

But regulatory interventions do shape the marketplace, and can do so quite significantly as Ofcom's actions with respect to pay-TV and Openreach demonstrate, and as noted they have also played a key role in the United States. This suggests returning to the questions raised in the European Commission's green paper on convergence (European Commission, 1997), and asking whether today's regulatory regime is suitable for the increasingly converged environment that is emerging. Integral to such an investigation would be ascertaining the impact that specific regulatory interventions have on convergence and the associated competitiveness of the companies operating within the market.

7. Conclusions

In this paper we have shown how, in the aftermath of a significant restructuring, BT substantially expanded its Internet operations. The company invested in infrastructure, improving its scope and quality, and acquired content. Initially this investment was funded by BT's dominance of the fixed-wire market, but as the number of Internet and content subscribers grew the company could also draw on the resources that these customers created. BT has arguably made great strides in generating new sources of revenues – 'new wave' revenues were 39% of total revenues in 2008, and by 2015 BT accounted for one third of all Internet connections.

This success, however, has highlighted the dominant role that BT plays in the market. Although Ofcom in its recent consultation has allowed BT to retain ownership of Openreach, the company has, in essence been given one final chance to improve the services that it offers. As Openreach contributes a substantial proportion of BT's overall EBITDA, this underlines the need to successfully create new and sustainable sources of revenues. If this becomes the criterion against which the transformation of BT can be judged, then it is clear that BT needs to do more to reduce its financial reliance on Openreach.

Although content has played a prominent role in the transformation of BT and the company has invested considerable sums over the years in its acquisition, it is unclear how this has enhanced the company's competitiveness. Not only has Ofcom cast doubt on the ability of BT to compete in the pay-TV market (Ofcom, 2015c), but the company has begun to charge more of its customers for access to BT Sports. This could imply that BT is not as wedded to the strategy of bundling its products to compete in the market as its initial actions suggested.

Given the lack of clarity regarding the impact that the bundling strategy of BT has had on its competitiveness, one area of further research relates to understanding how BT competes in an increasingly converged telecommunications market. This could examine the availability of content on the one hand, or the components within bundles on the other. Additional research could also examine the role of Openreach within BT within the context of legal separation in terms of the financial contribution it makes to its parent company as

well as the extent to which the agreement resolves the dispute or marks nothing more than a temporary hiatus in the march towards structural separation.

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