



D3.3.2.2 International open data ecosystem benchmarking study

Editor(s): Minna Rapeli
Author(s): Minna Rapeli
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Participants	Name	Organisation
	Minna Rapeli	Aalto School of Business
	Tomi Kinnari	Aalto School of Business
	Matti Rossi	Aalto School of Business

next Media
www.nextmedia.fi
www.tivit.fi

Johdon yhteenveto

Perinteinen journalismin liiketoimintamalli jossa uutinen on myyty ihmismassoille pientä maksua vastaan ja jossa mainonta on ollut tärkein tulonlähde, ei ole siirtynyt toimivasti verkkoympäristöön. Internetin yleistymisen myötä uutistalot ottivat käyttöön liiketoimintamallin, jossa uutisisältö jaetaan lukijoille ilmaiseksi. Samaan aikaan verkkomarkkinoinnista saatavat tulot eivät ole vastanneet perinteisestä printtimainonnasta saatavia tuloja vaikka mainostajat ovat etenevässä määrin siirtyneet verkkomainontaan. Tämän lisäksi verkkojulkaiseminen on mullistanut tiedon jakamisen, koska sen avulla kuka tahansa voi julkaista verkkoympäristössä ja tavoittaa miljoonia lukijoita hetkessä, johtaen siihen että uutistoimistojen rooli ainoana tiedon tarjoajana on muuttunut yhdeksi monien joukossa.

Tällä hetkellä monet uutisorganisaatiot ovat siirtyneet liiketoimintamalliin jossa heidän verkkosisältö on sijoitettu osittain tai kokonaan maksumuurin taakse. Toiset mediatilat ovat onnistuneet paremmin säilyttämään lukijakuntansa ja siirtämään heidät maksaviksi asiakkaiksi kuin toiset. Kaikki mediatilat eivät kuitenkaan ole siirtäneet sisältöään maksumuurin taakse, uskoen että uutisten tulisi yhä olla ilmaisia. Nämä mediatilat käyttävät vaihtoehtoisia liiketoimintamalleja. Tämä raportti lähestyy erilaisia liiketoimintaratkaisuja liiketoimintamallisuunnittelun kautta. Käytännössä raportissa analysoidaan avoimen liiketoimintamallin, osittain avoimen liiketoimintamallin sekä avoimen innovaation soveltuvuus verkkojournalismiin.

Tämä tutkimus ehdottaa että tulevaisuudessa verkkouutisten liiketoimintamalli noudattaisi näkemystä joka muistuttaa liiketoimintayksikön lähestymistapaa. Täysin avoimella liiketoimintamallilla voi olla joitakin rajoituksia tietyillä markkinoilla, kun taas osittain avoimesta liiketoimintamallista tulee todennäköisesti se joka otetaan yleisesti käyttöön. Teknologiat muuttuvat ajan myötä ja siksi liiketoimintamallit tarvitsevat jatkuvaa päivittämistä. Liiketoimintamallin tarkan suunnittelun lisäksi tarvitaan strategia joka syklimäisesti auttaa liiketoimintamallia tuottamaan tuloa.

Tutkimuksen loppupäätelmänä esitetään että verkkouutisten liiketoimintamallin rakenne tulee muuttumaan. Tulot tullaan keräämään useista, pienistä, määritetyistä lähteistä. Lisäksi samoilla markkinoilla toimivat uutisorganisaatiot liittoutuvat ja yhteistä liiketoimintaa luodaan sekä sanomalehti organisaatioiden että uutisteollisuuteen liittyvien organisaatioiden ja jopa kilpailijoiden välille. Uutisorganisaation brändin ja imagon erottuminen kilpailijoista ei ole koskaan ollut tärkeämpää kuin nyt, kun osa, tai jopa kaikki, uutinsisällöstä on siirtymässä maksumuurien taakse.

Executive Summary

The traditional newspaper business model where news is sold to masses of people for a small fee and where advertising has been the main source of revenue for news organizations has not generally translated to the online environment well. Since introduction of the Internet, news providers have provided online content free of charge for their readers thus introduced public a model where online content is for free. In the meanwhile online advertising revenue has yet to be unable to match the traditional newspaper advertising revenue although more advertisers continually enter to the online environment. In addition, online publishing has revolutionized information sharing enabling anyone to publish online and reach millions of readers in an instant. Therefore, online publishing has changed news organizations' role from being a sole news and information providers to become a source of news among many other ones.

Currently many news organizations have moved to a business model where their online content is placed partially or completely behind paywalls. Some news organizations have been more successful than others to retain their readers and transform them to payable customers. Yet some news organizations firmly believe that news should be free of charge and resist placing paywalls. This suggests that those news organizations that resist charging of their journalistic content have decided to opt an alternative business model. Different news business models are approached in this paper through business model design analogy. Suitability of open business model and partially open business model as well as use of open innovation for online journalism is analyzed.

This paper presents that in the future online news business model needs to follow many-to-many-to-many business model design analogy, which resembles business unit approach. Use of fully open business model has some limitations in certain markets, while partially open business model is likely to be adopted and embraced more in the future. Technologies (inputs in the business model) change over time and therefore business models require continued updating. In addition to careful design of business model, used strategy needs to be designed to create virtuous cycles.

This paper concludes that online news business model configuration will change. Revenue will be collected from multiple, small, defined sources. In addition, marketing alliances as well as joint ventures (revenue sharing business models) are established between organizations in related industries and even between competitors. Differentiation in brand and image will be ever so important when some or all news content is placed behind paywalls in the future.

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3 Introduction

3.1 Purpose of the study

Traditional news organizations have struggled to create a sustainable online journalism business model. Since boom of the Internet, readers were introduced a business model where online news are provided free of charge. Moving free content behind paywalls has been difficult, however studies have shown (Koponen, 2011) that people are willing to pay for online content, but only of those that they really read.

The aim of this paper is to analyze a rich corpus of data using business model evaluation techniques. Through business model design analogy different business models are presented: one-to-one-to-one, many-to-one-to-many and many-to-many-to-many. In addition concept of openness is discussed. The Guardian's open journalistic platform, Open Platform, is presented as an example of fully open business model. In addition, partially open business models are discussed in the context of marketing alliance and joint venture. This paper outlines possible novel future business model approaches and offers some strategic insights how to establish a sustainable business model for journalism.

3.2 Structure of the study

The following chapter 4 provides introduction to the current online news environment. SuBMoJour study (Sirkkunen & Cook, 2012) which is used as a starting point for this paper, divides online only journalism business models into two categories: Those that have storytelling- oriented business model and those that have more service-oriented business model. Blotter is used as an example of service-oriented business model. Then Chesbrough's and Rosenbloom's (2002) business model approach where the business model works as a mediator between technical and economical domains is presented. Technical inputs in online journalism can be new media uses, products, devices or technologies. Finally business model design analogy is discussed and business models of one-to-one-to-one, many-to-one-to-many and many-to-many-to-many are presented. Chapter 5 discusses concepts of open innovation and open business models. Fully open business model of the Guardian's open journalism platform is analyzed as well as its transferability to other news organizations. Then, partly open business models are presented in the context of crowdsourcing, marketing alliance and joint ventures. Differentiation is presented as an effective strategy in highly competitive markets where one major news operator is publicly funded. Finally, case of data journalism is used to demonstrate how not only changes in technical inputs alter the business model but how a change in technical input's production process has implications to the business model. Finally, chapter 6 draws a conclusion of the results.

4 Journalism and business models

4.1 Overview of journalism business model environment

Online journalism has changed the way people consume news. Today's audience is fragmented; people have post-modern lifestyles that include all kinds of mobile devices that are able to receive real-time updates; and online social networks have become the source to discover and interact with news topics. These are just couple of examples of the changing news ecosystem. This is a world where the old journalism business model where revenue is collected mainly from advertising and selling newspaper for masses for a small fee has no longer room. So far majority of the news organizations have been providing their online news for free of charge and therefore introduced a business model where consumers are used to having news content for free. As online advertising is not as lucrative as traditional advertising and there is a lot of competition in the field, news organizations have not been able to accumulate positive online advertising revenue streams. Studies show that people are willing to pay for quality digital content after all, however, only of those parts that they really read (Koponen, 2011). Therefore news business has moved from mass markets to niche markets in online environment, where customer intelligence will play a big part in the future business model.

Sirkkunen and Cook (2012) studied business models of the online only journalistic startups often called "pure players" in an international setting. Their Sustainable Business Models for Journalism (SuBMoJour) study discovered that the business models of the studied organizations fall into two main categories: Those that have storytelling- oriented business model and those that have more service-oriented business model. Those websites whose business model is based on content creation (storytelling) were still found to be prevalent. Produced content is niche targeted and there is a tight relationship between journalistic content and advertised products. The other group, service-oriented business model do not try to monetize the journalistic content as such. These websites are more like technological platforms that curate and moderate citizen-oriented content. Example of such platform is UK based Blotter, a crowdsourced news service launched in 2010 which operates in the major cities in UK and has also expanded to France and Germany. (Sirkkunen & Cook, 2012)

The Blotter is like the Wikipedia for news: it allows one person to begin a story, while other users can add more details, do fact-checking and proofreading enabling coverage from multiple viewpoints and positions. Users access the Blotter portal either with their Twitter or Facebook accounts or with dedicated login details. Users can write their news pieces under broader categories including, Entertainment, Sports, Technology and Travel as well as upload images and links to external videos. The platform features a user algorithm that is designed to attribute an influence to each user, and assigns users points based on their contribution. The influence feature is used to build and reward the community. This way trust towards the contributors is developed over time. Content contributors are not paid for writing per se, however Blotter monitors

their best contributors and approaches them with an idea of writing more regularly for them. The company then pays these hand-selected contributors based on how popular their stories are.^{1,2}

The Blotter gathers revenue from selling their technology platform called NewsPoint, which opens up the same core platform Blotter to external online publishers. Access to NewsPoint is created through an API which is tailored depending on the website on which it is to be implemented on. Blotter's content management system allows administrators add, edit, move or remove content as well as full control of the user database. Their business idea is developed around idea of helping other publishers to build communities and engage effectively with their digital users. Their revenue model has two licensing levels: A monthly service subscription and pay-by-performance. The performance is determined by traffic generated via NewsPoint. In addition to NewsPoint platform they sell platform related plugins and apps. In 2012 the company had 11 editors/moderators, 17 clients in UK and nearly 2000 citizen journalist who created all the content. Because of their lean company structure 95% of their overhead is stuff related, while they use no money for marketing their product at all. The company however sells advertising in forms of ad networks and ad sponsorships. The Blotter's business model is seen as sustainable according to Adam Baker the founder because it is not derived from advertising revenue.^{1,2}

Rather than having one winning sustainable and long-term business model for online journalism, researchers (Lehtisaari et al. 2012) suggest that in the future the revenue needs to be gathered from combination of small, defined and shared streams of revenue that need continuous updating. Different revenue models that consist both journalistic (content) and non-journalistic (IT-platforms, advertisements, affiliate marketing, crowdsourcing, revenue sharing with partners, etc) will be combined (Sirkkunen and Cook, 2012). Many small revenue streams require different business models for each of them as not all of them provide equal amount of value for readers thus they provide different amounts of revenue.

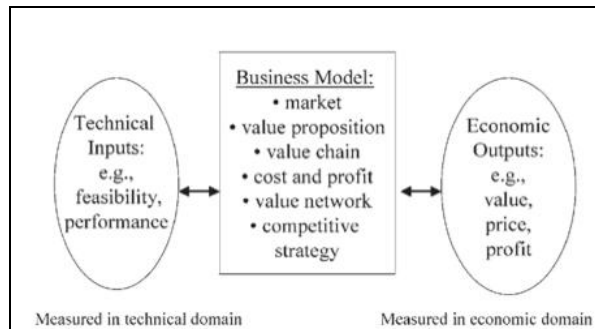
4.2 Simplistic input-output business model approach

There are numerous business model definition and approaches in the academic literature. Chesbrough and Rosenbloom (2002) provide a rather simplistic approach to business models that can be placed into the journalistic environment (Figure 1). According to Chesbrough and Rosenbloom "the business model takes technological characteristics and potentials as inputs, and converts them through customers and markets into economic value" (2002, p. 532).

¹ <http://www.submojour.net/archives/745/case-study-blottr-digital-limited-uk/>

² <http://thenextweb.com/uk/2011/06/03/blottr-launches-newspoint-and-opens-up-crowdsourced-reporting-to-publishers/>

Figure 1 The business model as a mediator between technical and economical domains (Chesbrough & Rosenbloom, 2002, p. 536)



Technical inputs in online journalism can be new media uses, products, devices or technologies. Not all technical inputs add the same amount of value to the same business model.

Chesbrough and Rosenbloom (2002) depict business model as a mediating construct between technology and economic value. They give the business model the following functions: Articulate the value proposition, i.e. the value created for users by the offering based on the technology; identify a market segment, i.e. the users to whom the technology is useful and for what purpose, and specify the revenue generation mechanism(s) for the firm; define the structure of the value chain within the firm required to create and distribute the offering, and determine the complementary assets needed to support the firm's position in this chain; estimate the cost structure and profit potential of producing the offering, given the value proposition and value chain structure chosen; describe the position of the firm within the value network linking suppliers and customers, including identification of potential complementors and competitors and; formulate the competitive strategy by which the innovating firm will gain and hold advantage over rivals. Goal of a strategy is to create self-reinforcing choice-consequence-choice-circle (Koponen, 2011).

In 2004 Osterwalder proposed his own perception of the business model and added to this list four more attributes: distribution channel, customer interface, capability, and revenue model.

A business model has an ability to convert one or more used technologies into economic value gathered from one or more markets. Each market is likely to result with different economic value as the same technology or product is either priced differently by the company or valued differently by different markets. Markets also differentiate by their growth rate and market share, which leads to a situation where some markets will adopt the technology or product faster than others. Amit and Zott (2001) identified four interdependent sources of value creation or value drivers for e-business, namely: Efficiency, complementarities, lock-in and novelty.

4.3 Simplified business model design analogy

Leung (2007) Simplifies business model design analogy with the following diagrams: T=Technology, BM=Business model and M= Economic value of a business model that can be divided by a market.

Figure 2 one-to-one-to-one (Leung, 2007, 26)

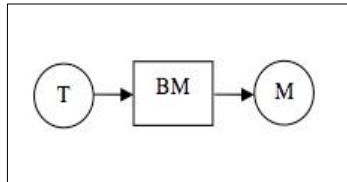


Figure 2 represents markets where one technology is in use and it gathers economic value through a business model from one market. This model represents the original journalism business model that has been applicable for decades until introduction of the Internet. The economic value here was collected from advertising and selling newspapers for masses while collecting small fee.

Figure 3 Many-to-one-to-many (Leung, 2007, p.29)

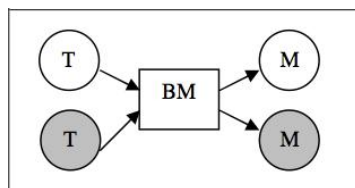


Figure 3 represents new technologies that utilize the same business model where economic value is gathered from a new market. This model represents situation where value of a new technology is aimed to capture through old business model and new market. This is more or less the business model that online journalism has utilized so far with little success. The old business model does not translate to the online environment. Instead business models for multi-platform publishing and well-targeted markets where revenue is collected from small multiple sources are needed.

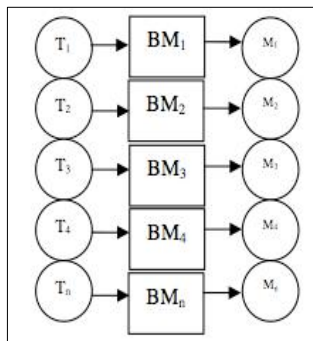
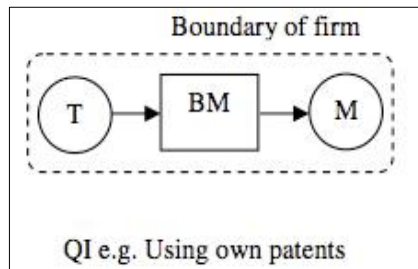
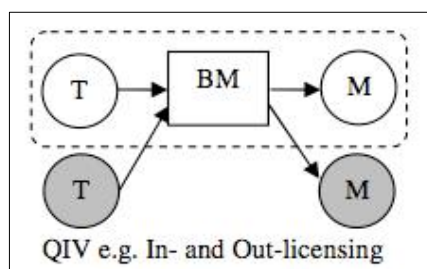
Figure 4 Many-to-many-to-many (Leung, 2007, p.30)

Figure 4 represents more feasible future online journalism business model that resembles business unit approach. Here, for instance, different digital platforms such as news applications, Twitter, Facebook, online communities and websites are considered to have different end markets, which value these products differently. Therefore they should all have their own business model and strategy for gathering value. Use of multiple business models simultaneously can also be a useful strategy to experiment the suitability of the business model as this strategy decreases the dependency on a single model to sustain profits and growth. Therefore unsustainable business models can be eliminated with less effect to the organization. (Linder & Cantrell, 2001)

5 Open innovation and open business models for journalism

“Open innovation is the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively” (Chesbrough, 2006, p.2). The open innovation considers research and development as an open system where valuable ideas can come from inside or outside the company and can go to market from inside or outside the company as well. Therefore external ideas and external paths to the market are on the same level of importance as internal ideas and paths to the market. (Chesbrough, 2006)

A company can choose based on strategic reasons to create value internally (closed) and or externally (open) and capture value internally (closed) or externally (open). Based on selected strategy, the business model is open, closed or partly open. Figure 5 resembles traditional news business model where value is created and captured internally. Figure 6 demonstrates a situation where in addition to internal value creation and capture, value is also created and captured from external media uses, products, devices or technologies, and captured from markets that they create (i.e. open innovation).

Figure 5 Closed business model (Leung, 2007, p.31)**Figure 6 Open business model (Leung, 2007, p.31)**

Currently the Guardian is considered as the leading open innovator in online journalism and has created entirely open journalism platform, which is based on open business model. The Guardian firmly believes that online news should be free of charge, a viewpoint that not all news organizations share. While insisting not to place paywalls to their content, the Guardian needs to have another revenue source. Their approach is revenue sharing with partners (application developers) through open innovation that is enabled by their open news platform.

5.1 The Guardian open journalism platform

The guardian has moved from being only news publisher to news platform business by combining content, search and open source to build a new online journalism business model. The Open Platform is a suite of services that enables partners to build applications in corporation with the news organization³. This new platform is seen by the Guardian as a key to their commercial future. Basically the Guardian provides their open technology platform for free of charge as well as access to their archived data collections in change for people to develop commercial applications in corporation with the organization. The organization applies open-in-open-out business strategy³:

³ <http://www.theguardian.com/open-platform/what-is-the-open-platform>

- Open in: Applications build by partners that are integrated into the Guardian network
- Open out: Applications using Guardian content built by partners for other digital platforms

The Open Platform consists of³:

- Content API: A service for selecting and collecting content from the Guardian for re-use
- Data store: A directory of useful data curated by Guardian editors
- Politics API: Open database of candidates, voting records, constituencies, election results, live data on election day
- Microapps: A framework for integrating 3rd party applications into guardian.co.uk

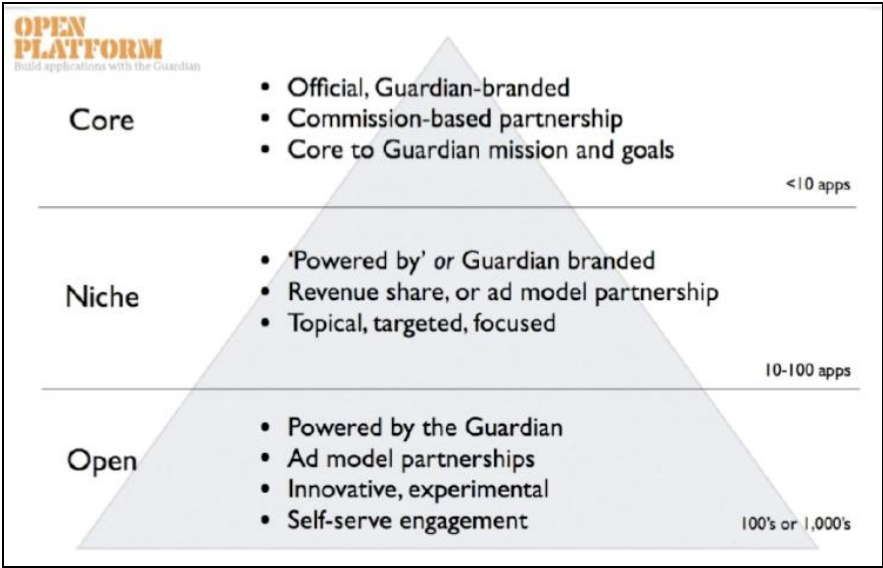
5.1.1 Revenue model of the Guardian's Open Platform

The Guardian applies three-tier revenue model for the Open Platform³:

- Keyless: Anyone has a free access to headlines, data, tags and meta data. No contract with the Guardian is needed. Application creator (partner) keeps associated revenue from the page.
- Approved: requires a contract with the Guardian. License to publish article in full, with an advert. Guardian keeps embedded ad revenue, partner keeps rest of the page revenue.
- Bespoke: Requires a contract with the Guardian. Partner is allowed to use, reformat and augment any available news content. The Guardian provides custom solutions for licensing content and integrating rich applications. Revenue model is based on sponsorship, revenue share, and co-development of applications.

The following Figure 7 shows the expected deviation of the created applications.

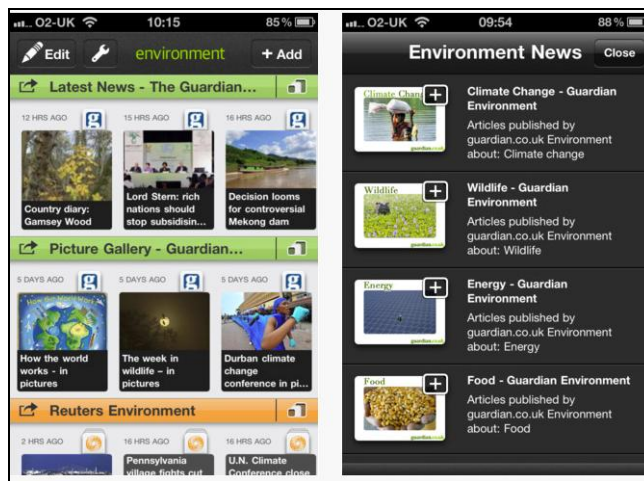
Figure 7 The Guardian's Open Platform⁴



Guardian has done some commercial partnership experiments with application developers. For instance, Taptu Guardian Environment (see Figure 8) is a free, customizable application for iPad and iPhone, built by Taptu and powered by Guardian content and therefore falls in niche category (see Figure 7). It provides all the latest environmental news, comment and images in mobile format. It provides a choice of story streams, such as climate change or wildlife, which users can tailor to their own tastes as well as access to picture galleries. Users can easily share stories on Facebook, LinkedIn and Twitter, or save them for later with Instapaper, Read it Later or Taptu's bookmark stream. In addition to Guardian's content, the application includes streams of some of the partners in the Guardian Environment Network, including Business Green, Yale Environment 360, Mother Jones's green channel and the IPS Inter Press Service, as well as others such as Reuters environment news.⁵

⁴ <http://www.slideshare.net/openplatform>

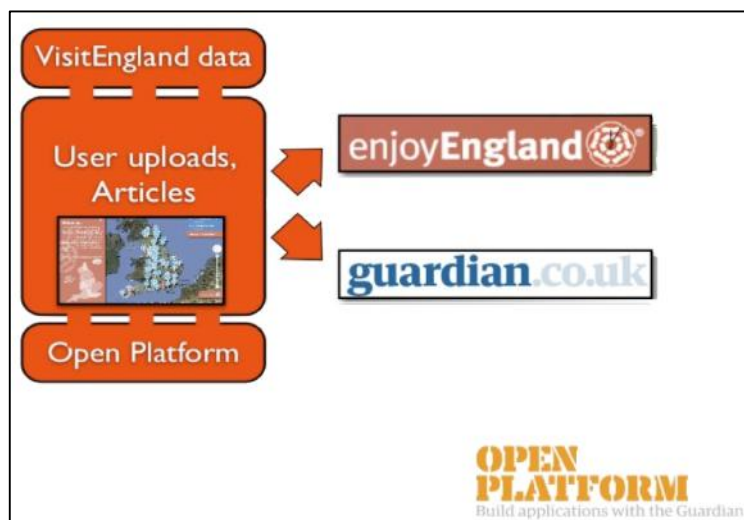
⁵ <http://www.theguardian.com/environment/damian-carrington-blog/2011/dec/21/environment-news-iphone-app-guardian>

Figure 8 Screenshots of Taptu Guardian Environment application⁶

Another example is partnership with enjoyEngland⁷, which is a multi-platform campaign. By utilizing Open Platform technology the Guardian created an interactive map on their website as a part of the campaign (Figure 9). The Open Platform API fed all of the previous content (and new content as it was produced) into Google mapping technology where it was geotagged to location and categorized by timeframe (ten minutes, an hour, a day etc) (Figure 10). Guardian content was displayed on the map with a blue 'G' flag and was updated regularly through the campaign. This experiment therefore falls into core category (see Figure 7). Users were encouraged to become a part of the project by uploading their own tips for Enjoying Every Minute to the map, which were displayed in real time and were shown with a red person flag to differentiate them from Guardian content. The map was also embedded into Enjoy England's website where the Open Platform allowed automatically upload the Guardian content so that it immediately appeared on the Enjoy England map. Each user tip, regardless of whether it was generated on the Guardian map or Enjoy England's version appeared immediately on both sites too.

⁶ <https://itunes.apple.com/us/app/taptu-guardian-environment/id487650170?ls=1&mt=8>

⁷ <http://www.theguardian.com/open-platform/apps-case-study-enjoy-england>

Figure 9 EnjoyEngland interactive map**Figure 10 The Guardian and enjoyEngland partnership through API⁸**

The Guardian claims the following benefits from the partnerships³:

- Full, unique commercial content, openly available
- Create new, sustainable marketing IP
- Opportunity to experiment and innovate
- Developer resource

Previously it was mentioned that online journalistic startups generally fall into two categories: Those that have content creation oriented business model and those that have more service-oriented business model. Guardian that is an old player in news business clearly aims to be a third option right in the middle as they create quality content free of charge and try to gather positive revenue

⁸ <http://www.theguardian.com/enjoy-england/interactive/map>

through their technological platform as there is no intention to place paywalls for their content.

Guardian's business approach is new, open and interesting. However, since the launch of the Open Platform in 2009 the business model has failed to gather revenue from digital publishing. The company recorded the £ 31.1 million loss for 2010, £ 44.2 million losses for 2011 and £ 30.9 million losses for 2012. Revenues of digital publishing for the years were £ 38.3 million, £ 45.7 million and £ 55.9 million respectively. While the revenue streams have increased steadily which showcases that the company may have created a viable business model, the company has used staff layouts as a way to stabilize fluctuating revenue losses. Meanwhile, during 2012 and 2013 the Guardian has expanded to both USA and Australian markets.^{9* 10}

Through expansion outside of UK and providing content free of charge the Guardian tries to increase their readership number and this way make their news platform more valuable for advertisers and application developers. This so called two-sided network effect increases value of the platform for the both sides: Readers have quality content for free as an incentive to keep using the platform while advertisers and application developers have access to millions of readers. This approach if successful, can take advantage of increasing returns to scale. More readers the newspaper is able to attract, the more advertisers and app developers are willing to pay to get access to the network. The Guardian therefore relays their future revenue to come from two sources, advertising as well as partnership possibilities created around their platform. Network effect however, does not happen over night, which at least can be listed as one reason why the Guardian's Open Platform has had negative revenue. While they have been gradually able to decrease revenue losses, much of it comes from staff layouts and therefore the numbers do not really tell of the viability of the platform.

Some industry observers claim that the Guardian's open journalism business model is a failure as it has not been able to gather positive revenue^{11,12}. According to Casadesus-Masanell and Ricart (2010) a business model consist of choices of which all will have consequences while strategy refers to the choice of business model through which the firm will compete in the marketplace. Therefore a business model is a reflection of the realized strategy. An outsider observer can only analyze current business model, which is what the firm's strategy prescribes for the current state. (Casadesus-Masanell & Ricart, 2010)

⁹ <http://www.theguardian.com/media/2012/jul/17/guardian-observer-report-losses-44m>

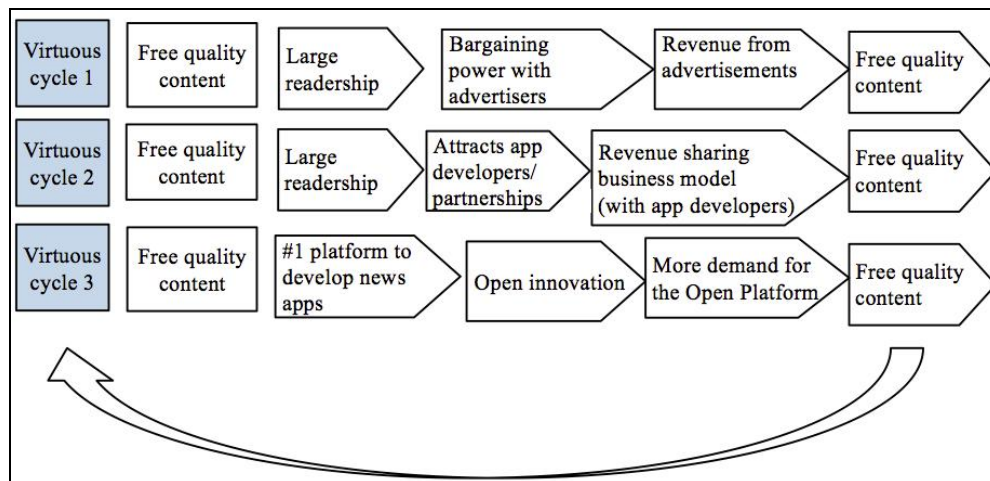
¹⁰ http://www.theguardian.com/media/2013/jul/16/guardian-cuts-annual-losses-digital-revenues?utm_source=direct-awe.sm&utm_medium=awe.sm-twitter&utm_campaign=&awesm=awe.sm_r31KX&utm_content=twitterfeed

¹¹ <http://wallblog.co.uk/2012/05/23/guardians-open-journalism-is-a-failed-business-model-says-brooke/>

¹² <http://charman-anderson.com/2011/06/16/the-guardian-needs-an-intervention/>

Business models can generate virtuous cycles, feedback loops that strengthen some components of the model at every stage. Virtuous cycles are not seen as a part of the definition of a business model, however they can be crucial elements in operating it. As the cycles spin, rigid consequences become more significant, and such virtuous cycles can develop valuable resources and capabilities. (Casadesus-Masanell & Ricart, 2010)

Figure 11 Possible virtuous cycles for the Guardian's open journalism business model



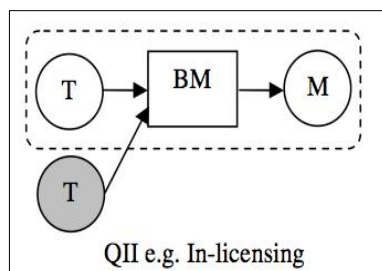
Guardian's Open Platform possesses some very strong qualities that may lead it to a success: First, they are known newspaper that produces quality news. Second, they provide content for free. Third, they have first mover advantage as no other major newspaper has similar technological platform. Fourth, they have markets where to expand as their content is written in English. In other words they can keep increasing value of their platform for quite awhile. Fifth, the Guardian is relatively wealthy news organization so they can push through this kind of open journalism innovation trial that smaller news organizations with limited resources cannot.

Perhaps the big question that many news organizations are wondering is whether the Guardian's open journalism business model is transferable to the other countries' news organizations as well. The network effect is truly effective when there are huge number of readers to which capitalize from. In countries, which have their own national language and small population, such as in Finland for instance, achieving substantial network effect is limited to number of people who speak the language. Therefore, similar network effects as to which Guardian is after are difficult to reach. Rather than moving to platform business, many news organizations may want to remain with content creation and create value adding services around them to which capitalize from.

5.2 Partly open business model

The business model is partly open when value creation is open and value capture is close. This outside-in process can be in online journalism linked to phenomena called crowdsourcing of content. “Crowdsourcing is a distributed problem solving process that uses a large group of people (crowd) to take responsibility for part of a firm’s activities” (Eisenmann, Parker & Van Alstyne, 2006).

Figure 12 Partly open business model (Leung, 2007, p.31)



5.2.1 Opportunity for content creation through crowdsourcing

With introduction of the Internet, long gone are days of one-way communication. Instead these days readers require the ability to interact with information they discover online as well as to be able to participate into the process of creating it. In addition, the Internet and technological developments have introduced an information dissemination model where journalists are no longer all-in-knowing position but anyone can publish news worthy items (opinions, reviews, videos, etc) while millions of readers have access to this information in an instance. By harnessing knowledge that is out there and placing it one sustainable place online, i.e. by creating a knowledge community or hub, news organizations could create a business model around crowdsourcing and make it valuable. An example of such community is Afterdawn.com, a website that utilizes crowdsourcing in addition to professional content and is niche oriented. Afterdawn is a free technology news and test site that has also a vibrant community. In 2012 they had 147 595 visitors a week. The website has been successful and now they have expanded their sites to the Netherlands, Spain, Denmark, Norway and Sweden. The revenue is mostly collected from advertising. (Sirkkunen and Cook, 2012) However, Afterdawn.com demonstrates that with a niche content and community approach (crowdsourcing), a relatively good number of visitors can be achieved. This approach is transferrable to the news business where for instance a journalist who wrote the published article would continue discussion of the issue in a discussion forum. In addition to regular news readers, bloggers/politicians/professionals/etc could be collaborated with inviting them to contribute to the news content through open content model and make the community valuable, however revenue model would be kept closed. Evidently this suggests that the news content would

be behind of a paywall or the most valuable parts of the news organization such as a community discussion board would be.

In another words, in order to read and participate in discussions related to published article, a membership of the community needs to be acquired which is done by subscribing the digital news. Once the reader has the membership, they have access to the news content including community discussions and they can ask for instance questions about the article from the journalist who wrote it and read what other readers have commented. Similar manner to Blottr (see chapter 5.1) a profile would be created for each subscriber to which they could add their background information in order to add credibility to their comments. Public figures could every now and then participate into the discussions. For instance during elections, selected politicians and researchers could participate to discussions related to written articles. This content created through crowdsourcing could then be source of a new article, which could be sold to other news organizations for instance. The role of news organization changes here form being sole knowledge disseminator to become more of a knowledge moderator. This way the news organizations could create two-sided market position where knowledge works as a platform.

5.2.2 Market sharing through alliance & joint venture (revenue sharing) model

When two companies from different industries ally together in order to access and create value for the same market, the two business models are connected through the same market (Figure 13). Figure 14 represents a situation where a new shared business model is created between joint venture partners while the old business models of each businesses are still in effect. The two companies can experiment with different business models in order to bundle their value sources and maximize the value creation and value capturing process. (Leung, 2007)

Figure 13 Marketing alliance (Leung, 2007, p.38)

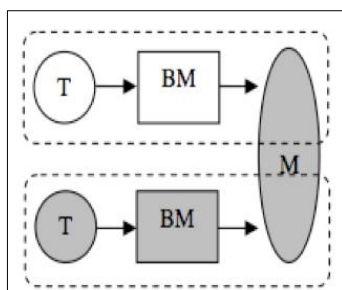
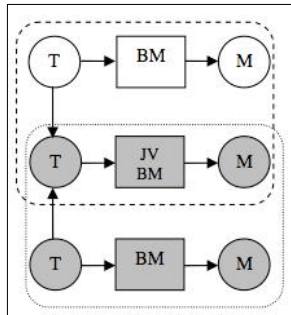


Figure 14 Joint venture (Leung, 2007, p.38)

The common business model where online news has been provided free of charge, competition has been non-existing and the news content among news publishers has not varied much has been in place in Finland. In 2013 there was a major change in news business environment as Yle tax was introduced for the public. Yle (Finnish Broadcasting Company) is a state owned, Finland's national public broadcasting company and has four television channels, 13 radio channels and services and 25 regional radio stations, and an online news website. The company's operations are now entirely funded by tax money collected annually from private individuals among their other taxes and from corporations. Private news organizations have seen this move to be unfair and distorting the markets. In late 2012, just before the Yle-tax was deployed, HS (Helsingin Sanomat), which is a private company and the largest subscription based newspaper in Finland owned by Sanoma, introduced a paywall to their content. Currently Yle needs to be considered by the other news organizations as a very potent competitor that has nearly limitless resources in their use and provides content on their website without paywalls. One way to compete in this environment is to move away from providing the similar content as Yle.

Differentiation is an effective strategy in highly competitive markets. While Yle remains state owned and tax-funded, it has to remain with certain kind of image and identity: a rigid, neutral news provider that covers large amount of news. Private news organizations on the other hand have an opportunity to differentiate themselves from this traditional news provider identity and this way to create different kind of value for their readers. They could for instance cover news worthy items that Yle is unlikely to cover, take a bolder approach in writing their articles, they could concentrate in creating more investigative articles, specialize in creating data journalism with vivid visualizations, use citizen journalism as part of their content to name but a few. Since Yle's news reporting is funded by public its content can also be considered as open data. Private news organizations could therefore integrate Yle's news reports (and other media content) into some of their news articles freely and then elaborately write their own news article based on Yle's reporting. This would free private news organizations from

reporting news in similar style as Yle and would rather allow them to concentrate into adding value to the content in forms of commenting and analyzing the news item. In other words, the content of news articles would change from being pure information to towards more of knowledge through analysis of the news article provided by Yle. This approach to content creation creates a point of differentiation for private companies. Joint venture (Figure 14) depicts this approach, although it is not so much as a “joint” decision from Yle’s part. This model suggests that the content that is supplemented (joint) with Yle’s will require a new business model.

Joint venture could also be considered between two or more commercial news operators and between related industries. Example of such is an integration between HS (Helsingin Sanomat) and Channel 4 news media¹³. HS is currently fully responsible of the production of the Channel 4’s news. This provides a considerable advantage for the HS when SmartTV business takes off and blurs the line between the content that is broadcasted through television channel and content that is online

In chapter 5.1 this paper establishes a viewpoint where in the future the revenue needs to be gathered from combination of small, defined and shared streams of revenue that need continuous updating. Continuous updating of the business model is required because technical inputs change over time. Previously technical inputs in online journalism were defined to be new media uses, products, devices or technologies, for instance. Change in technological input can be radical where an input is replaced with an entirely new one (classified section in newspaper versus Craig’s list online), or it can also come from changes within input’s production process. If a new production process alters the end product or output, the markets value the product differently, which has implications to used business model.

5.3 Changed production process has implications to business model: Case data journalism

Data journalism, a form of journalism that utilizes data as a source of stories (input) and which displays its findings in visual format (output), is going through transformation. Rapeli (2013) studied trends, patterns and processes of data journalism and established an outlook for the future processes. Current trend of creating data journalism is to have an inside data journalism team within an organization that does all the process phases (find story idea, data manipulation, data analysis, story writing and story visualization) needed to publish data journalism. However, in the future according to Rapeli some of the data journalism creation phases are likely to be outsourced to companies specialized into these phases. One such phase, for instance, is data manipulation, which requires a lot of programming and data alternation and therefore is at the core of data journalism. This work phase often takes up to 80% of the time of all the data journalism phases, requires special knowledge and is rather tedious. Another

¹³ <http://www.hs.fi/kulttuuri/a1305548535924>

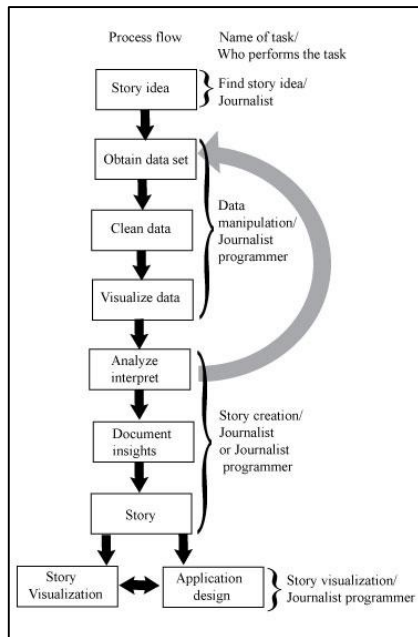
phase to be outsourced in the future was found to be visualization. Rapeli found correlation between data journalism phases and open data business model profiles found in Finland (Kinnari, 2013) discovering that there are existing businesses formed around open data manipulation and visualization to which media organizations could in the future outsource their data manipulation and visualization phases (Table 1). Table 1 suggest that by reading from left to right the basic journalistic tasks such as gathering information for example, corresponds in data journalism manipulation of data, requires coding skills and could be done by companies found to operate in the extract and manipulation field in Finland.

Table 1 Correlation between data journalism and open data business models (Rapeli, 2013, p.36)

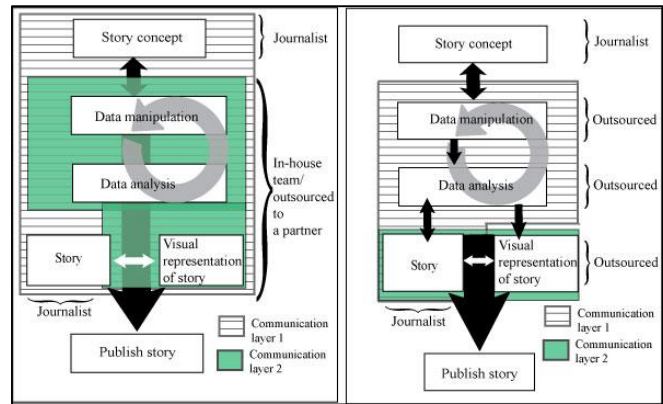
Holovaty: “Basic journalistic tasks” (Niles, 2006)	Chicago Tribune's App Team's current data journalism model: 4 Work phases	Heather Billings: Skill set of a programmer journalist (Billings, 2012)	Arising open data business models: Case Finland (Kinnari, 2013)
	Story idea		
Gathering information	Data manipulation	Code	Extract & manipulation
Distilling information	Story creation	Storytelling	Data analyzer
Presenting information	Story visualization	Design	Data analyzer/ User experience provider

Moving from the in-house only data journalism creation process model to outsourced process model has implications to the overall business model. Obviously cost and resource structures will change. In addition, production process becomes more efficient and quality of end product is likely to increase as companies specialized into data manipulation and visualization is employed. Higher quality end product and more frequent publishing schedule provides an opportunity to media organizations to differentiate themselves as premium data journalism publishers, for instance. Figure 15 depicts current and future data journalism processes.

Figure 15 Comparison of the current and the future data journalism creation processes



Chicago Tribune data journalism process model 2012
(Rapeli, 2013, p.30)



Possible future data journalism creation process models: Data journalism consultancy model and outsourced chain model for data journalism (Rapeli, 2013, p.66)

Figure 15 shows on the left-hand side a conventional data journalism creation process using Chicago Tribune as an example while on the right-hand side are possible process models for the future. Rapeli depicts that in the future only finding a story concept and actual story writing will remain in the news organizations while rest of the data journalism creation processes are outsourced to close partners. Depending of the outsourcing approach journalist is more or less involved in the outsourced processes and takes upon managerial role by supervising those processes done by the partner organizations.

6 Conclusion

Purpose of this paper was to analyze a rich corpus of data by using business model evaluation techniques. In other words, through use of business model design analogy different business models were presented. Suitability of open business model and partially open business models as well as use of open innovation for online journalism was discussed.

This document agrees with previous research that there will not be one sustainable long-term business model for online journalism. Rather there will be combination of small, defined and shared streams of revenue that need consist updating. These revenue streams will consist both journalistic content and combination of non-journalistic content such as IT-platforms, advertisements, affiliate marketing, crowdsourcing to name but a few. In addition partnerships with organizations in related industries and even with competitors are likely to be established through revenue sharing business models. Within this business climate, those news organizations, which are able to differentiate themselves in eyes of the readers, create desired value through customer intelligence and capitalize it, will have a first mover advantage. In addition, business models require careful design including the strategy that supports the business model through virtuous cycles.

Business model in this paper was depicted as a mediator between technical and economical domains. The technical inputs in online journalism were listed to be new media uses, products, devices, technologies or changes in news format's creation process, which effect to the economical value of the business model. Through business model design analogy this paper described and explained why the traditional journalism business model is inefficient today. The paper presented many-to-many-to-many business model, which resembles business unit approach as a viable online news business model for the future.

The concepts of open innovation and open business model were presented. The Guardian, a news publisher with a history of innovation and openness with its digital business and a firm believer of free online news content was used as an example. The Guardian's Open Platform, which has a fully open business model (open value creation and open value capture) and which fosters open innovation was analyzed alongside strategy that they deploy. It was discovered that transferability of the Guardian's business model to other countries with a small population and their own native language might have limitations that can affect revenue.

Partly open business model opportunity where value creation is open but value capture is closed was studied through crowdsourcing, marketing alliance and joint venture. All of these approaches and their combinations have potential as a source for future revenue.

In news business brand and image differentiation from competitors will become important when the readers are expected to pay for the online content. Popularity

of Yle's publicly funded free online media content is prominent and requires commercial competitors to provide something of extra value in order readers to pay for it. Since Yle's online content is paid by private individuals and corporations their media and news content can be considered as open data. Therefore, it can be freely integrated to other news content created by commercial news organizations, for instance.

Data journalism was used as an example of a news format that is going through great changes in production process in the near future. In fact it is forecasted that most of the in-house production will be outsourced to organizations specialized in different creation processes. As a result, news organizations have an opportunity to publish data journalism more often and the quality is likely to improve leading the markets to value the end product differently thus having an effect to the business model.

Finally, the future news business model configuration will look very different from today's. Majority of traditional Finnish news organizations are likely to remain in content creation business model. However, there are no longer masses of people who will read online news, rather there are individuals who have special interests and who are willing to pay for the news, but only of those that they really read. Therefore, the newsreader markets need to be segmented based on readers' interests and format of communication they prefer which can be achieved through customer intelligence. For each segment a business model is then created. This means that news organizations will move to the business unit approach where there is numerous business models use at once.

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