

科技部補助專題研究計畫成果報告 期末報告

台灣影視產業困境與轉機：科技創新與新商業模式

計畫類別：個別型計畫
計畫編號：MOST 104-2410-H-004-112-
執行期間：104年08月01日至105年10月31日
執行單位：國立政治大學廣播電視學系

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報告附件：移地研究心得報告
出席國際學術會議心得報告

中華民國 105 年 12 月 28 日

中文摘要：台灣影視產業陷入困境多年，包括廣告量、收視率、授權費、與節目重播等問題長期一成不變，隨著中國市場與新媒體的競爭，出現明顯市場萎縮的危機。本研究透過實地調查與訪談，討論目前大數據在中國與台灣影視產製、收視率與廣告行銷應用，所面臨技術、法規與商業模式的問題。同時，也檢視台灣近年成立的OTT 影視平台，是否有足夠節目版權、規模經濟、與創新技術的配套可以成功，希望提供產官學能從「科技創新」與「新商業模式」的角度，共同思考台灣影視產業可能的轉機。

中文關鍵詞：影視產業、科技創新、商業模式、大數據、影視平台

英文摘要：In recent years, the video industry got into the dilemma in Taiwan, for ceasing progress of advertising, rating, and license fee. As the competition from China and new media, the scale of market might be even smaller than before. This study will explore the application of big data in production, rating and advertising through the field observation and interview of the market players in Taiwan and China. In addition, it will review the current performance of the OTT (Over the Top) platforms to discuss the factors deterring the video development in Taiwan. This research hopes to rethink the possible turning point of Taiwan's video industry from the perspectives of technology innovation and new business model.

英文關鍵詞：Video Industry, Innovation, Business Model, Big Data, OTT

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執行期間：104年8月1日至105年10月31日，展延3個月

執行機構及系所：政大廣播與電視學系

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中 華 民 國 105 年 12 月 28 日

關鍵詞：影視產業、科技創新、商業模式、大數據、影視平台

中文摘要

台灣影視產業陷入困境多年，包括廣告量、收視率、授權費、與節目重播等問題長期一成不變，隨著中國市場與新媒體的競爭，出現明顯市場委縮的危機。本研究透過實地調查與訪談，討論目前大數據在中國與台灣影視產製、收視率與廣告行銷應用，所面臨技術、法規與商業模式的問題。同時，也檢視台灣近年成立的 OTT 影視平台，是否有足夠節目版權、規模經濟、與創新技術的配套可以成功，希望提供產官學能從「科技創新」與「新商業模式」的角度，共同思考台灣影視產業可能的轉機。

Key words: Video Industry, Innovation, Business Model, Big Data, OTT

Abstract

In recent years, the video industry got into the dilemma in Taiwan, for ceasing progress of advertising, rating, and license fee. As the competition from China and new media, the scale of market might be even smaller than before. This study will explore the application of big data in production, rating and advertising through the field observation and interview of the market players in Taiwan and China. In addition, it will review the current performance of the OTT (Over the Top) platforms to discuss the factors deterring the video development in Taiwan. This research hopes to rethink the possible turning point of Taiwan's video industry from the perspectives of technology innovation and new business model.

一、 研究計畫背景及目的

1、研究計畫背景

台灣影視產業陷入困境多年，首先是廣告量成長有限，過去數十年來，無線電視台加上有線電視頻道的廣告雖然有所成長，但比例不高。當然這不只是電視廣告的問題，除了網路與手機等新媒體外，其他報紙、廣播與雜誌等傳統媒體，廣告量更是逐年減少。其次是收視率明顯下滑，數位時代有上百個頻道，加上各種網路影音與新媒體內容競爭消費者有限的專注力，因此節目的收視率早就是在小數點之下。最後，有線電視收視費不但長期不變，或是有些地區微幅調降收視費後，系統進而要求減少頻道的節目授權費用。而由於有限的廣告量、下滑收視率與授權費用，導致節目獲益下降，因此也就不敢花大錢製作優質節目，而沒有好的節目吸引觀眾，收視率不見起色，廣告量與收視費也無法提昇，造成惡性循環，整個影視產業陷入一灘死水（曾國峰，2010）。

相反的，近年來中國影視市場不管是在閱聽市場或是廣告量均遠大於台灣規模，雖然廣電總局對電視節目規範仍多，但對於網路上的影視節目限制較小，愈來愈多台灣戲劇節目在中國的优酷土豆、愛奇藝等網站平台上架，不少台灣觀眾也直接透過網路在線上收看，如果人數夠多，未來也可能吸引台灣廣告刊登，再加上已經有不少的影視製作人才西進，則從製作、平台、廣告與觀眾都被吸納後，台灣可能變成「中國好聲音」與「甄環傳」重播市場的危機（張舒斐，2013；台灣經濟研究院，2014）。

這幾年隨著有線寬頻網路超過上百 Mbps，4G 服務普及，透過網路平台觀看影視內容逐漸成為全球趨勢，不管是美國的 Youtube、Netflix、Hulu、Amazon，中國的优酷土豆、愛奇藝等平台，或是透過各種 Google 電視棒與 Apple 電視盒等 OTT 服務，已經滲透進入智慧型電視（圖 1），雖然由於節目數量與類型還無法全面與數位多頻道電視競爭，進而取代既有電視內容，形成消費者退租有線電視服務趨勢（cable line cutter），但已經明顯逐漸瓜分廣告與收視費市場，對年青觀眾族群更已經慢慢成為主流。然而這種近年來在全球掀起熱潮的 OTT 影視服務，目前並沒有在台灣影視市場受到關注，是觀眾不習慣這樣的收視與消費方式，還是業者沒有提供足夠的影視內容，以及合理價格的商業模式？



圖 1、國外影視產業頻道數目變化

影視製作需要大量創意與資本投入，但觀眾偏好難測，是風險極高的產業，台灣影視市場規模小，業者更不敢對不確定的未來投資。不過隨著數位匯流，閱聽人在數位載具上觀看所留下的巨量訊息，可以透過大數據的統計分析，了解閱聽人收視行為與偏好。例如這幾年一直被當作範例的「紙牌屋」（House of Cards），就是 Netflix 透過其平台數據分析後所製作的賣座戲劇，後續也引發更多影視平台的學習。隨著今年台南出現第一個完全數位化的有線電視系統，凱擘 MSO 主導成立「新媒體閱聽行為研究實驗室」，定期公告超過 40 萬數位用戶的收視率，或是目前中華電信的 MOD 也有 130 萬的用戶，系統平台是否可能善用這些數位資訊，不但可以製作更多觀眾喜好的影視節目，甚至是跳脫傳統的尼爾森收視率調查，創造新的廣告交易模式。

近年來台灣影視產業陷入一灘死水的困境，在隨著中國市場與新媒體的競爭下，未來甚至可能出現市場委縮的危機。台灣影視產業是否可能應用大數據的資料分析，加上跳脫傳統「頻道」模式的 OTT 影視新平台，創造不同的產製與消費經驗。本研究計畫希望提供產官學能從「科技創新」與「新商業模式」角度，共同思考台灣影視產業可能的轉機。

2、研究目的

本研究將透過實地調查與訪談，了解目前大數據的創新科技，在中國與台灣的影視產製、收視率與廣告行銷上的應用，以及所面臨到的技術、法規與商業模式的問題。另外，也將檢視最近台灣將要成立的影視 OTT 是否有足夠的配套可以成功，不管是在節目版權與電視台間的競合，討論台灣影視製作與消費平台是否可能持續向中國市場傾斜的問題。

這幾年來，台灣影視產業已經陷入走不出的困境與危機，隨著全球影視產業不斷應用大數據的科技創新，與 OTT 的新商業模式競爭，台灣影視產業最大的有線電視業系統業者，卻還停留在抵制 MOD 頻道上架的時代，以為影視競爭只有彼此，卻不知外面行動網路與數位匯流，早已改變市場結構與商業模

式。本研究計畫希望在調查與訪談過程，可以有機會激發業者間不同的創新與合作，思考台灣影視產業突破現狀，出現新商業模式的可能轉機。

二、 文獻探討

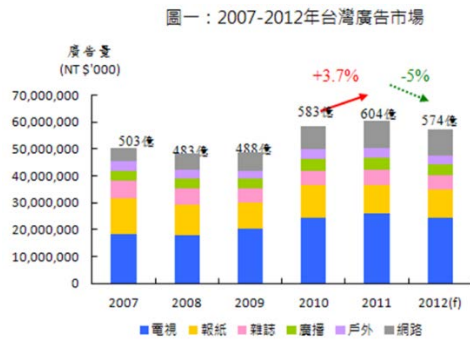
1、 台灣影視產業的困境與危機

影視產業製作需要創意、人才與資金投入，其中廣告是電視台的主要收入來源。傳統上，企業會根據不同產業特性，提撥部分營業收入比例，購買廣告以強化與行銷品牌，因此，一般來說廣告量會隨著經濟成長而變化，企業賺得愈多，也會投資更多在購買廣告上。不過，過去十多年來，雖然台灣經濟成長率不再有早期亮眼的雙位數，但至少仍然是不斷正成長，除了 2009 年的金融風暴為-1.81%外，實質 GDP 都是持續增加。但為何相對之下，整體廣告量並不如預期（圖 2），主要是台灣目前的產業結構有不小比例是以代工為主，甚至是台灣接單、海外生產，即使台積電再怎麼賺錢，仍然不可能見到其在電視或報紙上購買廣告，行銷其代工的積體電路產品。



圖 2、台灣經濟成長率與同期廣告量趨勢比較

過去數十年來，台灣無線電視台加上有線電視頻道的整體廣告量雖然有所成長，但幅度比例不高，加上有線電視的總頻道數增加，除了少數較有吸引力的頻道之外，每個頻道所能分到的廣告量其實並沒有很明顯成長。當然這不只是電視廣告的問題，目前除了網路與手機等新媒體的數位廣告量可以看出快速成長之外，其他像是報紙、廣播與雜誌等傳統媒體，近年來的廣告量更是逐年減少（圖 3）。



圖一：2007-2012年台灣廣告市場

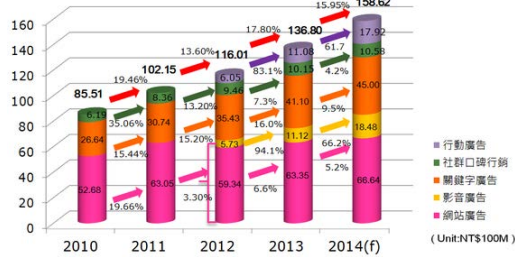


圖 3、近年台灣不同媒體廣告市場變化，與數位廣告成長趨勢

除了電視廣告量成長有限之外，基本上，由於頻道內容品質經常受到觀眾抱怨，台灣有線電視的每月收視費用長期維持在\$550 上下，有些地區甚至在微幅調降收視費後，系統更進而要求減少頻道的節目授權費用，對頻道與內容製作公司來說更是雪上加霜。相對之下，美國有線電視平均月費每年成長，從 1995 年的\$22 美元增加至 2011 年的\$57 美元，主要是來自數位化建置成本與頻道數目的增加，不過也惹來美國民眾的抗議，但因此電視節目製作的營收可以不用過分依賴廣告量（圖 4）。

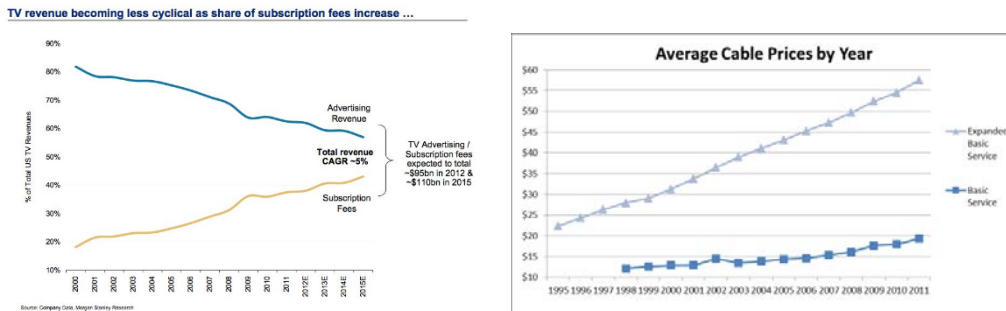


圖 4、美國廣告占整體營收比率下降，以及平均有線電視費率增加趨勢

台灣電視台的製作經費逐年減少，收視率也明顯下滑，加上各種網路影音與新媒體內容競爭消費者有限的專注力，節目的收視率早就是在小數點之下。而由於有限廣告量、下滑收視率與授權費用，導致節目獲益下降，因此也就不敢花大錢製作優質節目，而沒有好的節目吸引觀眾，收視率不見起色，廣告量與收視費也無法提昇，造成惡性循環，整個影視產業終陷入一灘死水。

相反的，近年來中國影視市場不管是在閱聽市場或是廣告量均遠大於台灣規模，一個湖南衛視的產值就已經大於台灣整體的電視營收，這幾年興起的節目冠名權動則數億人民幣，一集「中國好聲音」節目製作成本就高達 3 千 6 百萬，製作單位的人數有 220 個，光是攝影機更有 25 台，多年來台灣已經有太

多影星、製作人與最基本的工作人員轉戰中國影視市場。此外，愈來愈多台灣戲劇節目在中國的优酷土豆、愛奇藝等網站平台上架，不少台灣觀眾也直接透過網路在線上收看，未來更可能吸引台灣廣告刊登，若從製作、平台、廣告與觀眾都被吸納後，台灣恐將變成只是中國影視的重播市場，這樣的困境有轉機的可能嗎？

2、 科技創新與大數據應用

2-1、創新與科技

近年來產業變化快速，企業不知道未來會發生什麼事？無法以具體、量化定義評估客戶、市場、對手、產品、技術等，因此「創新」(Innovation) 幾乎是全球經濟雜誌這些年的討論重心，而新創公司也確實扮演產業火車頭，但創新人人會講，卻到底是什麼，如何執行，是否有步驟可以學習呢？

Rogers (1995) 定義所謂「創新」，是指「想法、行為或事物對任何個人認知為新的」，基本上可以分為兩種創新，分別是維持性 (sustaining) 與破壞性 (disruptive) 創新 (圖 5)。維持性創新是指提昇目前既有的功能，例如電腦 CPU 的速度加快，或是有線電視系統的頻道數增加等。相對的，破壞性創新是指與既有的產品設計或製造不同的思維，通常會推出新的價值主張 (value proposition)，例如 mp3 對音樂產業，或是 Netflix 對影視產業，消費者的使用經驗也與過去不同，完全改變整個商業模式。

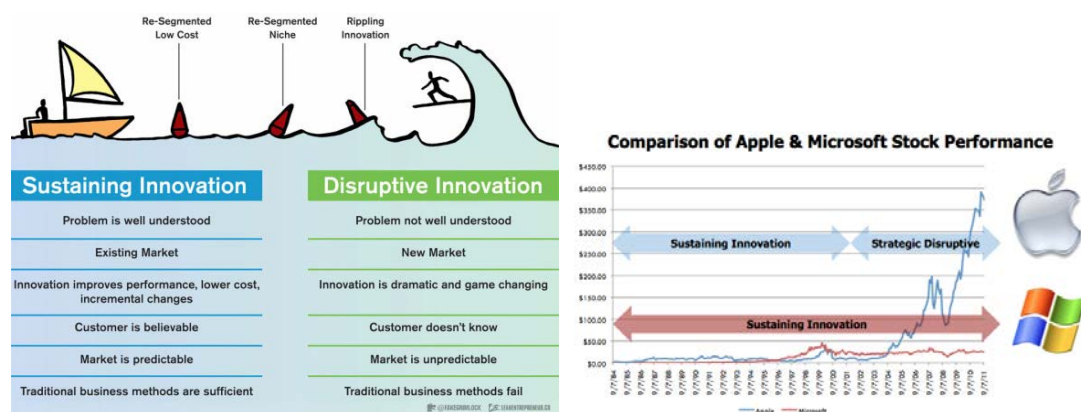


圖 5、維持性與破壞性創新比較，以 Apple 與 Microsoft 為例

此外，創新也不只是「科技」改變而已，可能是有彈性、可調適、前瞻性與有膽識的一個流程，或是發展點子，轉變為有價值事物的過程，也可能是一個結果，不只是初步想法，但可能是產品本身，或是一種屬性，是獨特、原

創、效用與「價值性」，甚至是市場利潤以外的「社會價值」(Morris, 2011)。

例如，Lowrey (2011) 分析 317 家報紙與網頁，討論組織類型、專業經理人對報紙產業態度，與網頁創新的關係。研究發現公共機構型的新聞組織為了維持其合法性，比較會與產業尋求一致性，大部分是在表面性的改變與創新，例如新聞網頁美編上的變化，而不是來自因應外在環境的策略評估，或是內部溝通後對整個新聞產製的組織改變。相對的，如果是因為讀者與市場而改變的新聞機構，則會較從根本思考新聞產製流程創新，以提供更多元的新聞內容與型式，滿足各種讀者的需求。

破壞性創新為什麼困難，有些很好的公司為何無法持續創新，或是推出的創新是以失敗收場？即使是過去經營良好的公司，為了服務既有的消費者與獲利，不能或無法放棄原有的經營模式，而去嘗試不確定性高的新科技與服務，等到組織面臨外在環境的挑戰時，通常新的競爭者已經掌控市場，既有業者已經來不及因應了。Christensen (1997) 認為這是所謂的「創新者的兩難」

(innovator's dilemma)，企業目前最強勢的供應、需求與獲利策略，由於無法變動，反而變成未來衰退的主要原因。也就是大型媒體企業，如果滿足既有穩定的獲利，以為目前就是不變的，缺乏創新與冒險的組織文化，無視變化萬千的外在環境，則將很快會被市場新的競爭者所取代。

McKinley et al (2014) 也認為當營收與獲利走向衰退時，組織是應該更堅持原本的策略上，還是大膽的走向創新，經常是陷入進退兩難。當表現不如預期時，組織可能更嚴格控管預算、成本，要求效率指標，但這些可能因此限制新服務與產品的可能，造成更進一步的衰退。但是如果連基本的生存都出現問題了，怎麼會有資源與勇氣，執行不可確定的創新策略，何時與在什麼條件下，組織應該勇於創新，以及在那些面向創新呢？

由於數位匯流時代，可以明顯看到新媒體、網路與電信產業是近年被提及的創新例子，對媒體企業來說，創新到底是什麼？Gershon (2011) 曾以 Sony、Netflix 與 HBO 為個案研究，分析人力、組織與策略，認為這些公司在產品、製造過程與商業模式等三個面向中，至少有一項是具有創新的特質，特別是在「破壞性」的創新，並不是在同樣面向，生產更好的產品給既有顧客，而是破壞既有市場，推出更簡單、更便利、更便宜的產品給要求不高的新顧客，也是新進業者較常採用的方式，才能夠在競爭激烈的媒體產業中成功。

不過，新聞組織對未來「不確定」(uncertainty) 的認知不同，也將會影響所採取的創新策略與程度。當產業未來充滿不確定時，管理者較不會試者要開闢出全新的局面，而會走原本較為熟悉，或大家一直都在做的方式；相對的，

如果這些創新的不確定性降低，未來改變的方向是可以想像與執行時，管理者就較可能大膽的改變。此外，在多元結構的社區環境，比較能接受不同多元的想法，也會影響新聞組織創新的意願，而不同規模的組織大小，由於所擁有的資源不同，通常較大的新聞組織有較多的資源，但相對的，也可能因為科層結構複雜，或是股東專注在短期獲利，也可能阻礙創新的可能（Lowrey，2011）。如果新聞組織面對的是競爭較大的市場時，集團也較願意投資較多資源在新聞創新。

研究問題 1：雖然同樣面對外在媒體環境的巨大改變，但為何國外市場可以不斷推陳出新不同的創新服務，不管是在技術、產品、流程或商業模式，但在台灣媒體產製與消費模式卻變化有限？創新通常會出現在怎樣企業組織文化、或是產業規模結構，台灣目前的影視公司中是否有具創新特質？

2-2、大數據的科技創新

這幾年由於數位匯流，使用者轉為經由方便的手機、平板或是智慧電視等裝置，透過 APP 與雲端連線來消費各種媒體內容。例如，透過 Spotify 聽音樂、Amazon 讀電子書、Netflix 看影集等，或是 Facebook、Twitter 與 LINE 等社群互動。每天從早到晚，使用者在網路上留下巨量的「數位足跡」。大數據（Big Data）分析就是把這些巨量資料，透過軟體工具，在合理時間內進行擷取、分析與處理，將無意義的資料，轉為資訊、知識，甚至是智慧的過程（圖 6）。

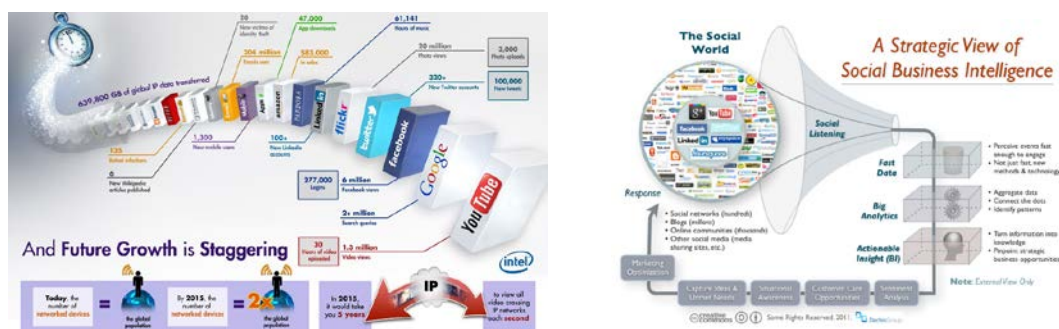


圖 6、不斷快速成長的網路使用資料量

之前在媒體產業最廣為舉例的大數據應用個案，就是 Netflix 製作的「紙牌屋」，目前 Netflix 全球有近 5000 萬用戶資料，每天都要處理數十億的讀寫操作，包括各種的收視習慣、裝置、類型、搜尋關鍵字與評分資訊，甚至包括聲音大小與螢幕色彩等細節。「紙牌屋」的出現，主要是透過上述資料的分析發現：大多數用戶完整收看完由大衛芬奇（David Fincher）所執導的電影《社群

網戰 (The Social Network)》，英國 BBC 版本的《紙牌屋》亦受到 Netflix 訂戶喜愛，而看過英國 BBC 版本《紙牌屋》的訂戶中，亦會收看由凱文史貝西 (Kevin Spacey) 所主演的作品，或由大衛芬奇所執導的作品，綜合上述三個要素，Netflix 因此決定投資 1 億美元自製美國版的《紙牌屋》(台灣經濟研究院，2014)。

類似大數據應用的個案也出現在中國影視平台，愛奇藝為百度旗下的視頻網站，2013 年收購 PPS 後，目前合計有 5 億的用戶，每日使用人數高達 4500 萬，類似 Netflix 可以針對用戶分析其特徵與影視使用行為關係。之前《廢柴兄弟》就是應用分析中國網友熱門話題「廢柴」(類似台灣的魯蛇 loser)，加上過去情境喜劇最受消費者喜愛而推出。透過大數據的資料分析，對內容、題材、製作團隊、演員等，可以降低戲劇推出後失敗的機率，因此也吸引很多中國視頻平台相繼投入影視節目的製作，2014 年預估整體的網路視頻將投入數十億人民幣 (台灣經濟研究院，2014)。

相關的應用也出現在其他的媒體研究中，例如，Lewis, Zamith & Hermida (2013) 介紹大數據在是如何應用在傳統的量化內容分析上，以公共廣播 NPR (National Public Radio) Andy Carvin 製作人的 Twitter 為例，分析其節目製作時對消息來源的偏好情形。Larsson (2013) 以瑞典的一個脫口秀節目為例 (Hübinette)，說明製作單位如何應用 Twitter 來了解觀眾偏好與即時的互動歷程 (圖 7)，除了使用分析 Twitter 人數與發表的文章數量外，也可以進一步分析其個人 profiles、偏好與社群關係，並且可以了解貼文內容的傳佈脈絡，以及不同 Twitter 間的互動。

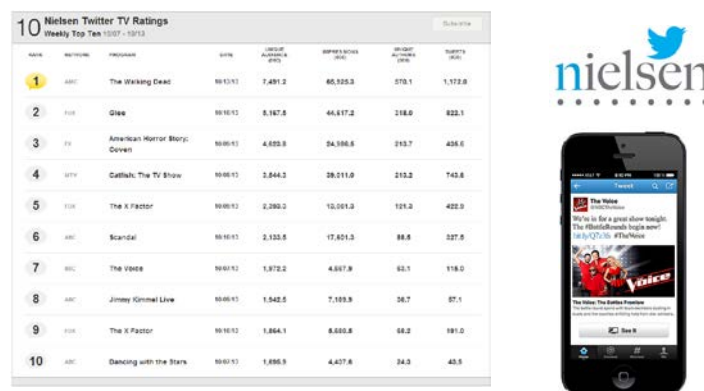


圖 7、Nielsen Twitter TV Rating 例子

Miall-d' Août (2014) 說明很多在小數點下的東歐電視節目收視率，透過數位機上盒可以接收到的數位資料 (30 萬用戶)，可以了解真正的觀看人口與偏好，特別是對 niche 屬性的節目類型，傳統數千用戶的 people meter 較適合大眾

節目測量，小眾節目收視率低，過少的樣本可能有很大的偏差，也無法了解觀眾收視過程中的脈絡。目前 Simulmedia 透過收集美國 35 個全國性的有線電視系統，共約有 5 千萬用戶，能夠可直接了解用戶真正的使用行為，可以提供廣告商更精準的購買，例如資料顯示有愈來愈多有小孩的外出工作者，習慣在非黃金時段的晚上或早上收視，這是傳統五大電視網的 prime time 收視下滑的原因之一（Lafayette，2013）。

雖然這幾年不斷被提及大數據的重要性與價值，不過 Fulgoni（2013）認為事實上在過去的數十年，大數據的概念早就已經被廣泛的應用了，但是在數據的使用上仍然出現不少的偏頗。例如，行動與網路的使用者是以年輕族群為主，或是廣告 cookie 可能不斷刪除更新而影響精確性。不過隨著行動裝置也擴及其他的年輕層，甚至是愈來愈無所不在的物連網（Internet of Things），將會提高資料的多元與相關性。但是能獲得、萃取、整合、分析與應用這些巨量數據，即使到目前為止，也仍然要面對資料的異質性、即時性、不完全與不一致性等問題，仍然需要更多的先進工具與理論來解決，更不用說愈來愈多討論大數據合理使用的倫理問題（Jagadish et al, 2014）。

此外，Mahrt & Scharkow（2013）認為在討論大數據的應用與影響，特別是在數位媒體研究時，有過多缺乏理論辨證，而過於依賴大量數據分析的問題，就如同過去習慣量化迴歸統計分析時的盲點。例如，資料來源的偏頗、量化數據無法反應研究問題、或是缺乏情境訊息的分析等，很多是原本在操作傳統量化統計分析時，經常可能發生的問題。其實以抽樣或是母體來分析，也牽涉到不同的研究問題，是用來解釋或預測、是目前或長時間記錄等，尤其是最後的詮釋是需要有理論基礎，而不是只看表面的數據關連就直接下結論。

研究問題 2：中國優酷土豆與愛奇藝等網站，對創新科技的接受度，或是企業組織文化，空間設備、以及軟硬體工具的使用分析，是否可以提供台灣業者那些經驗學習？相較於 Netflix 或是愛奇藝網站，其用戶數目動則數千萬、甚至是數億，台灣目前的網路影視平台的用戶數量過少，在資料分析可能出現的偏差為何？

3、 新商業模式與 OTT 平台：

3-1、商業模式理論

過去這幾年，由於台灣媒體產業陷入困境，很多產業與學術論壇經常討論，什麼樣的新媒介商業模式，才是適合台灣新媒介的市場結構與企業組織？但首先，什麼是「商業模式」（Business Model）？Osterwalder & Pigneurs

(2010) 在 *Business Model Generation* 書中提到，所謂商業模式是”the rationale of how an organization creates, delivers and captures value”，主要可以分為價值主張 (value proposition)、成本與獲利 (圖 8)，其中，「價值主張」是所要傳達給消費者的，到底是什麼樣的使用價值經驗，是最核心的要素。例如 Kindle 的商業模式的核心，是要問可以提供讀者有別無傳統書本怎樣的數位閱讀價值與經驗，而不只是不斷透過降低成本，以獲取最多營收而已。

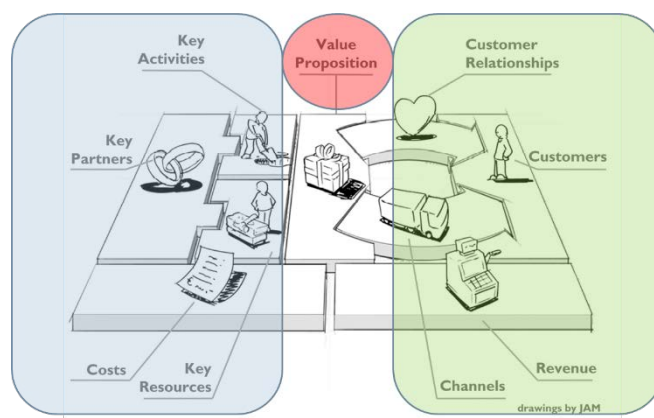


圖 8、商業模式的九個基本要素

雖然企業總是期待成功創新的商業模式出現，但總是經常無法如人所願。舉例來說，為什麼 iPod 不是由 Sony 所發明？當時日本公司有所有需要的技術，也擁有相關的音樂內容版權，但為何無法再造過去 walkman 時代對襲捲音樂市場的創新發明？當然 iPod 能夠在當時廣受歡迎，並不是 device 本身，而是串連音樂公司、iTune 軟體、iPod 與消費者間的商業模式，改變原本 CD 一張張購賣的消費行為，滿足過去長期被全球唱片公司所忽略的消費者需求 (Gobble, 2014)。

Girotra & Netessine (2014) 提出一個檢視商業創新的模式，包括一連串有關成本、利潤與風險管理的決策，同時以 1994 年創立的 Amazon 為個案，以過去 20 年的時間軸，討論企業組織內部，在面對外在媒體、網路與電信的匯流環境變化時，是如何決定創新產品、或是新的消費模式。雖然每個企業的資源與特質不同，是無法直接類比複製，但從 Amazon 的個案分析，可以提供管理者了解即使是電子商務的龍頭企業，也是不斷要面對外在創新競爭的挑戰。

面對變化多端的外在環境競爭，企業組織是願投入商業模式的創新，但由於經常會伴隨很高的風險，因此造成企業評估後裹足不前。Euchner & Ganguly (2014) 提到可以透過系統性的分析與配套，降低不確定性，成為動態可作的商業模式，而不只是 Osterwalder & Pigneurs (2010) 所提到的在靜態模式。例

如，在提出 value proposition，在認為新的價值可以增加更多的獲利時，也必須同時思考不會達成的因素與機率，並透過小型的先導實驗，在商業模式的每個環節中，具體辨識出可能的失敗風險，提高企業投入創新的意願。Chatterjee (2013) 以效率、價值鏈、品牌與網路效益等四種商業模式為基礎，透過有系統的評比，設計出跨四種不同商業模式的混合形式，以提供能夠成功的機率。

Picard (2000) 分析從 1980 至 2000 年的 20 年後，由於傳播科技與閱聽人需求的大幅改變，線上內容服務已不同於過於傳統的消費方式，並討論幾種過時的例子，像是直接付費、公共免費、廣告支援等模式。Picard 當時提出的 Digital Portals 商業模式是直數位化的影音內容，可以很方便的在線上儲存、傳輸、搜尋與觀看等，過去由於頻寬不足而無法落實，不過，以這幾年的寬頻與壓縮技術，早就讓很多業者開始推出類似的服務了。

數位匯流對內容產製與消費影響甚大，也改變了媒體間的互動方式，企業需要思考不同的商業模式，以維持在市場上的競爭優勢。McPhillips & Merlo (2008) 認為消費者愈來愈零碎化，以及更多的新媒體競爭，廣告量不斷下滑，在社群媒體的發展下，消費者結合內容生產角色。Wilkström & Ellonen (2012) 分析四家紙本媒體，如何透過網路社群，改變與讀者間互動的價值主張 (value proposition)，並從 Osterwalder & Pigneur (2010) 的商業模式架構，分析個案是如何在消費與生產兩端的改變，以達到利潤與成本之間的平衡。

Fetscherin & Knolmayer (2004) 提出特別針對媒體內容消費為主的商業模式，包括：產品、消費者、收入、價格與傳送等五個面向，討論該內容產品如果以免費與付費方式，分別可以有多少的直接與間接廣告收入，其中發現大多數的報紙與雜誌會以免費的方式吸引讀者，但也因為數位內容對原本的實體內容是具取代性，而不只是輔助功能，因為影響既有的收入來源，但由於與其他競爭者的內容沒有區隔，因此也無法採取直接費付，如此便陷入了財務風險的困境。

或是 Sharma & Wildman (2009) 以行動網路業者為例，由於語音服務的每月收入貢獻度不斷下滑，需要開發新的數位內容服務獲利模式，不過，如同過去大部分的網路商業模式一樣，如果目標只是要吸引消費者的點擊數量，廣告仍會是主要的收入來源，要想讓使用者直接付費，則有不可取代性、滿足需求的內容，才可能增加更多的獲利可能。

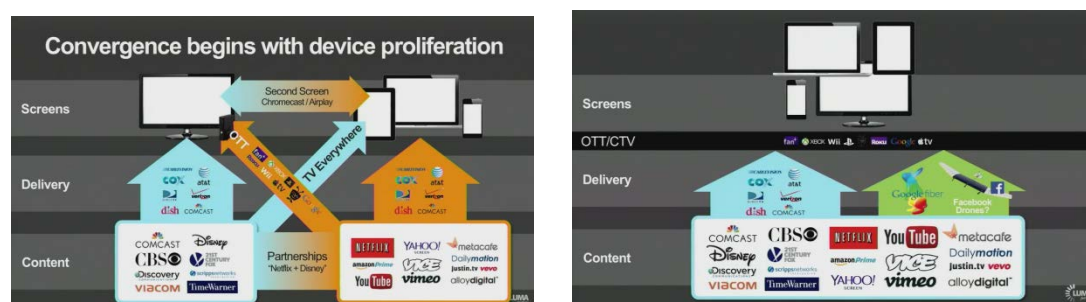
Cook & Sirkkunen (2013) 則是分析 69 家只有網路版的 10 國線上新聞網站，發現在競爭激烈的網路新聞市場，能夠提供特定 niche 專業的新聞模式，類似 Chris Anderson 的長尾理論，由於新科技提供較低的營運成本，不以追求

最多點擊量為目標，而是經營有深度讀者，或是成為其他大眾媒體的內容供應者，是目前很多小眾媒體仍能生存的主要原因，不過，不同國家的 niche 內涵並不同相同。

Vaccaro & Cohn (2004) 整理過去音樂產業的主要三種商業模式，傳統 CD 銷售、網路 P2P 免費、線上單曲下載購買。過去幾年以 iTunes 為例的音樂消費方式為市場主要的商業模式，但也很快的在近年來，銷售單曲的數量也出現下滑，出現新的競爭者與商業模式。這主要是由於無所不在的行動網路普及後，消費者不需要擁有所有想聽的音樂，透過每月不高的使用月費，可以隨時隨地聽到上百萬首雲端上的各種音樂，例如 Spotify 或 Pandora 的服務，已經對 iTunes 形成很大的競爭壓力。因此可以看出各種媒體均不斷嘗試各種創新科技與流程，希望可以發展可能的商業模式。

3-2、OTT 如何改變影視商業模式

所謂 over-the-top (OTT) 影視服務，字面上的意義是單指透過特定的機上盒，但目前也廣泛包括類似 Youtube 的網路影音、線上 IPTV、或是購買 google 與 Apple TV 電視盒的影音平台，通常仍扮演有線電視互補的角色，節目內容重覆性不高，雖然消費者開始會花更多時間觀看，但仍會續訂有線電視、衛星與電信的多頻道節目服務。不過，隨著在美國以廣告獲利為主的 Hulu，或是消費者直接付費 Netflix 的觀眾愈來愈多，新媒體在節目與傳統電視內容重覆性愈來愈高時，OTT 已逐漸變成影視內容產消費的新商業模式 (Tanner, 2010)。



Source: The Future of Digital TV. <https://www.youtube.com/watch?v=A8PeC0Jb1Yk>

圖 9、匯流後的影視新商業模式

類似的發展近年也在中國影視市場興起，原本主要播出非法影集的优酷土豆等網路平台，在累積足夠數量的使用者後，也開始朝向版權節目為主的模式。例如 2014 年騰訊與 HBO 合作，成為中國獨家的播放平台。內容是王 (Content is King) 是過去多年來在影視產業的口號，認為唯有好的內容，以及

誰能掌控內容，便能主導影視獲利的價值。不過 Knee (2011) 不認為如此，從 Netflix 的例子，他認為是 aggregators 而不是 content creators，才是擁有影視產業價值的來源。

Netflix 是一家原本透過郵寄方式，經營 DVD 出租的影視服務公司，隨著網路頻寬與品質提昇，轉向線上串流影音，消費者每月支付\$7.99 美元，即可無限制的透過手機、平板、電腦、智慧電視、遊戲機或任何可以上網的裝置，觀看多達數十萬的電視與電影，2013 年底的年營業額是近 44 億美元，員工約 2300 人，全球有超過 4 仟 5 佰萬的訂戶，其中有 3 仟萬美國訂戶 (Netflix, 2014)。

一般來說，如果在不同 backbone 與 ISPs 之間的網路資料量傳輸是平衡的，則彼此間是不需要額外付費的，目前 Netflix 同意付費給 Comcast 以獲得足夠寬頻來提供高畫質的串流影音，是因為 Netflix 佔有 30% 的所有流量，因此需要額外的經費投資寬量容量，如果不是由 Netflix (訂戶月費提高 1 美元) 支付，則將會轉嫁給 ISPs 如 Comcast 的訂戶 (Lenard, 2014)。此外，為了獲得穩定的節目來源，Netflix 也不斷與多家影視製作集團簽下合作關係，例如，Walt Disney、NBC Universal 等 (Netflix, 2014)。

除了原本線上影音的 Netflix 與 Amazon 外，付費的有線電視頻道 HBO，以及傳統的三大電視網 CBS，也決定在 2015 年推出自己的 OTT 服務平台，內容包括過去與現在所有在 CBS 電視網、或是 CBS 所擁有版權的節目、甚至是 Showtime 的影片，每月定價在\$5.99 美元。過去這些大型媒體內容集團不願意釋放節目在網路平台，因為擔心會影響到原本電視台的收視率與廣告 (Lafayette, 2014)。

另外，Hulu 在 2008 年創立，提供線上的隨選影視節目，該網站目前主要是由 NBC Universal、News Corp 與 Disney 所投資，因此包含 NBC、FOX 與 ABC 無線電視網的節目，以及集團所擁有的電影版權，另外也有少部分的節目是來自自有線電視頻道，總共約有超過 7 萬部電影與電視影集，內容是由廣告為主要的獲利來源，2010 年也開始推出付費服務，以及 2011 年的全球用戶 (Braun, 2013)。

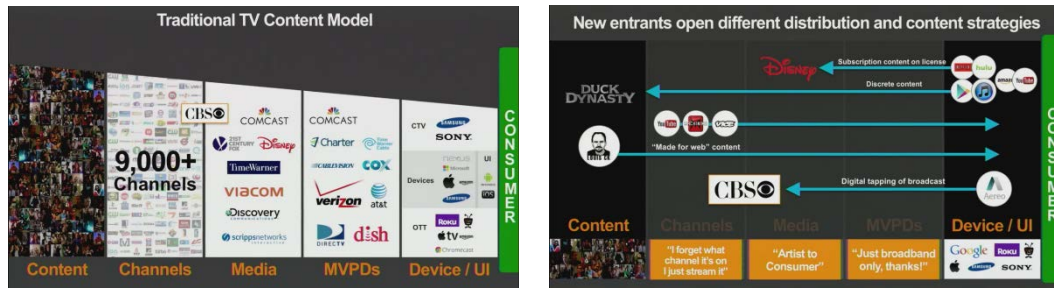


圖 10、傳統電視與新進業者商業模式改變

雖然電信龍頭 AT&T 雖然仍在原本 franchise 地區持續經營數位多頻道電視服務 (U-verse)，但也在 2014 年與 Chernin Group (母公司為 News Corp.) 合作推出 OTT 服務，試圖擴展全國性的用戶，預定最初就要共同投入 5 億美元。AT&T 認為其在電信網路、行動與寬頻基礎，加上 Chernin Group 在影視內容與行銷上的專業，可以互補推出具競爭力的 OTT 服務 (Baumgartner, 2014)。

不過，為了維持影視產業的競爭，避免系統透過垂直壟斷節目，對其他的 OTT 業者產生不公平的競爭，美國在 Comcast 與 NBC 併購時，要求遵循所謂的 "Over the Top Condition"，也就是 NBC 對於給 Comcast 任何的節目播出授權條件，也應該同樣的給其他的 OTT 業者，避免因為節目的垂直壟斷，而出現沒有內容或過高授權費的問題 (Eggerton, 2014; Hammond, 2011)。

同時，為了鼓勵傳統的有線電視系統業者，能夠及早普及 "TV Everywhere"，加入類線上影音的新商業模式，形成實質多家有線電視系統跨越經營區的全國性競爭，而不是目前即使要達成 duopoly 競爭，也不易在各地區鋪設兩條以上的有線電視線纜。美國 FCC 建議將解除 must carry 規範或其他有線電視系統的負擔。不過要達成 TV Everywhere 的另一個問題，是如果要將原本在各區播出的有線電視頻道也能在全國各地播出 (除了自己原本的垂直整合頻道外)，則需要與擁有內容的媒體集團重新談判版權 (Eggerton, 2014)。Waterman et al (2013) 認為 multi-channel programming distributors (MPVDs) 所謂的多頻道節目傳輸業者的 "TV Everywhere" bundling，可以被視為是用來減緩訂戶退租至 OTT 的商業模式，以及阻礙新的 OTT 進入線上影音產業的策略。

D'Arma (2011) 檢視近年來網際網路對無線電視產業的衝擊，認為應該要從 aggregation 的角色改變著手，如果不能投入類似 OTT 的經營，則未來會愈來愈像是影視製作公司，僅能提供節目內容。Evens (2014) 認為無線電視業者應該 "sleeping with the enemy"，討論 NBC 與 FOX 創立 Hulu，以及後來 Disney 所擁有的 ABC 也加入，透過 co-opetition 的策略，獲得擁有版權節目播出的機

會。

由於線上網路影音平台具有時間置換功能（time displacement），也就是消費者可以隨時決定什麼時候要收看什麼節目，如果當無線或有線電視的頻道節目內容，與網路線上的內容重覆性高，如果費用與轉移成本合理，問卷調查下的消費者將會願意轉移至線上影音平台，同時減少收看類似 Youtube 的 UGC 內容（Cha，2013）。

例如，本計畫研究者經常聽到學生會告知他們都不常看台灣影視節目，而是透過中國的影視平台收看各國電影與電視，印象中年輕人的比例較高，心想台灣還有些對科技不太熟悉的老一輩會是傳統電視的主要觀眾。不過，月初搭到一輛計程車司機放在車前的不是「民視飛來訊」，而是透過 3G 吃到飽的網路以及智慧型手機，透過中國的「飛行網」即時收視「三國演義」古裝劇，司機告知已經看過好多部古裝劇了，回到家也不再看傳統電視了，當各種族群觀眾的收視行為都改變時，台灣影視產業還能守在傳統的商業模式？

研究問題 3：台灣不像國外市場大，各家 OTT 的片庫少則數百部，多則幾千部影片，付費戶數最多也只有數十萬，與國外動則數十萬部影片與上千萬付費用戶數相比，各平台仍然無法合作的主要原因為何？國內電視台與製作公司參與合作意願為何，如何分配利潤，而因台灣市場規模小，導致國外影片版權數量少與價格高的影響程度為何？

三、 研究方法：

要進一步了解台灣影視數據與收視率的發展應用，本研究將訪談目前電視數據業者，包括尼爾森、資策會、凱擘與中華電信 MOD 等業者（如表 1），同時也訪談兩家廣告代理商，以了解廣告主與代理業者在下廣告時對使用者數據的需求，另外，OTT 對象集中在目前佔有平台優勢且已推出影音服務的中華電信（中華影視）、台灣大哥大（My Video）與遠傳電信（friday 遠傳影城）等三家電信業者，以及幾家推出 OTT 服務的有線電視頻道與 MOD 頻道代理商，與 LiTV 與台灣愛奇藝等新平台。最後，再從產業公會與頻道代理商，了版權談判對內容與系統業者的實質影響，過少的片庫將無法吸引消費者，也將影響後續彈性的價格策略。

除了訪談各家電視台與 OTT 決策管理者，討論目前與未來如何面對跨平台、載具與國界間的競爭外，也會實地參觀各家 OTT 業者的經營場域，包括 OTT 業者的行政空間、人員數目、專業能力、機房設備等，可以看出一家公司後台複雜的支援系統的營運能力。

表 1，台灣影視產業經理人受訪名單

類型	姓名	職稱
收視率與大數據調查	王鴻瑞	資策會創新應用服務研究所組長
	林茂興	中華電信北分公司處長
	鄧儒宗	凱擘大寬頻數位媒體與文創副總經理
	陳筱雁	台灣尼爾森媒體研究副總裁
廣告代理商	郭瀧憶	星傳媒廣告代理商
	陳啟亮	台灣電通安吉斯集團策略資源部協理
公會	李依玫	中華民國衛星廣播電視事業商業同業公會祕書長
	彭淑芬	有線寬頻協進會理事長
電視台	王宗弘	民視新媒體事業群副總經理
	張正芬	三立行銷公關部副總
	許芝蘭	TVBS 總經理室顧問兼新總事業處籌備處
MOD 頻道	嚴立行	台灣互動電視執行長 Fain TV ?
	陳怡君	愛爾達執行長
新平台	錢大衛	LiTV 董事長
	楊鳴	台灣愛奇藝總經理
三大電信業者	周宗邵	中華電信行銷處 OTT 辦公室主任
	李芃君	台灣大哥大新創服務 副總經理
	劉漢菁	遠傳電信網路暨電子商務事業群執行副總經理
頻道代理商	趙培培	中嘉副總、全球頻道代理
	林雅惠	凱擘法務部副處長

如表 2，中國大陸主要的受訪對象，除了三大 OTT 業者以外（愛奇藝、優酷土豆、騰訊視頻），還包括克頓傳媒製作公司、上海文廣與百視通的 IP 與內容版權主管，其他影視生態業者，例如，北京歌華有線電視系統、樂視影視、多媒體數位電視軟件、與網路遊戲的影視製作等相關主管，另外，也同時訪問台灣長期在中國大陸的版權主管與資深電視製作人，涵蓋了中國影視生態圈不同面向的受訪者，少部分受訪者希望可以匿名受訪，在較小的壓力下討論。

表 2，中國大陸影視產業經理人受訪名單

類型	姓名	職務
三大 OTT 業者	張天闊	愛奇藝市場部公關總監
	蘇文華	優酷土豆集團創新智能電視總經理
	王南	騰訊視頻智能電視部總經理

內容製作 IP 與版權	孫麗	克頓傳媒 IP 中心總經理
	*中階主管	上海文廣集團版權部
	*中階主管	東方明珠百視通版權部
有線電視	韓雯凱	北京歌華有線市場管銷部主任
電視平台	*中階主管	樂視影業經理
電視軟體	葉文鑫	快投上海視九信息科技有限公司執行長
網路遊戲	蔡明晃	愷英網絡影視中心總監
台灣影視版權	林美瑤	凱擘影藝北京總經理
台灣電視 製作人	張志鵬	上海光芒文化傳播總經理
	李方儒	上海新文化傳媒集團綜藝事業部總經理

*部分受訪者礙於公司內規，希望匿名受訪。

四、 結果與討論：

1、 大數據時代，為何尼爾森仍然獨占收視率市場

雖然 Netflix 透過大數據分析，了解使用者對影片類型、導演與演員等之間關連，成功推出賣座的「紙牌屋」，但後續很多同樣擁有大數據的影視平台，例如 Amazon，雖然也操作類似手法，但卻不見得都能獲得相同的回報。台灣雖然看起來有多家 OTT 業者，但由於很多平台的用戶數都不多，其實並沒有所謂的「Big Data」，資料量太少，無法做大數據的分析。

目前台灣較有可能產生大數據的，主要是中華電信的 MOD，或是凱擘主導的「新媒體閱聽行為研究實驗室」，凱擘與資策會合作的實驗室已經開始定期公告有安裝機上盒的 40 多萬用戶的使用行為，雖然這是母體的普查，但由於只是凱擘的數位用戶，既不包括其他 MSOs 的數位用戶，也不含其他的類比的有線電視用戶，因此目前仍然沒有被廣告商所接受，做為廣告計價交換的籌碼 (token)。

雖然幾年前凱擘就已經與資策會合作，推出數位有線電視機上盒的收視率調查機制，但凱擘表示他們從來就沒有要與尼爾森競爭電視收視率調查市場。雖然目前每分鐘有 40 萬用戶的 log 資料回傳，但這些都是以用戶為單位，而不是個別使用者，也無法知道相關的人口變項資訊。此外，目前也只有約 40% 的凱擘用戶安裝的是雙向機上盒，並不是所有的用戶，凱擘用戶僅佔所有有線電視的 25%，而且大部分集中在北部地區，目前台灣大部分的用戶並不能提供相關的使用上傳資料，因此，所得到的資訊便與傳統的尼爾森收視率不同。

兩種收視率公司使用不同的測量科技與樣本方式，所得到的數據自然也會

有所不同，過去在其他國家也有過同時有幾家不同的調查公司與收視率數據並存的例子，但不用多久的時間，在市場競爭下，通常只會有一家能存活下來。主要是因為收視率被視為市場交換的「貨幣」(currency)，目前很難讓廣告主與代理商等，有足夠的財力與資源再去支持另一個交易的籌碼(token)，當同樣的電視內容但出現不同數據時，需要花更多時間與精力向顧客解釋原因，同時也增加更多的市場交易的不確定性，因此，大部分的收視率調查最後都變成是自然壟斷市場。

不像使用 panels 調查方式，可以得到個別使用者的人口變項，使用機上盒一般只能有收視戶的資料，雖然數量很大，但這些資訊對廣告主與代理商來說卻沒有太大的價值。那為何凱擘不考慮設計 panels 機制，透過開機後使用機上盒的軟體介面，也可以獲得類似尼爾森的個別使用者資料。不過，因為目前在台灣的電視收視率調查產值並不太，大約只有 2 億左右新台幣，還不到電視廣告的 1%，若真得有第 2 家業者進入，如果不能擊退對手離開市場，最後兩家可能都會無法獲利，因此目前凱擘並沒有要投資相關軟硬體設備在個人使用調查，也沒有要取代尼爾森收視率的打算。

除此之外，目前絕大部分在台灣的廣告代理都是跨國公司，很多的廣告主也都是國際連鎖品牌，因此相對於其他的收視率數據，他們更願意採用同樣在其他國家有類似服務的尼爾森公司的資料，因為可以方便與其他國家的資料進行比較。也因此，當初中華電信在 MOD 建立類似的收視率調查指標時，雖然中華電信本身專長在電信與 IT 產業，但也是尋求與尼爾森合作，以獲得樣本操作 know how 與品牌，以爭取廣告主的信任與購買。

2、分眾閱聽人收視行為調查機會

即使凱擘也同樣建置個人化的收視率調查設備，如果只能提供類似原本尼爾森的個人資料內容，除非提供較低的價格，否則無法獲得廣告顧客與代理商的接納，但如果要削價競爭，除非可以低到尼爾森也退出，然後獨占市場，但業者們使用新資料也需要更多的交易成本，除非低價大於成本，不然目前既有的市場規模是無法支持兩家業者的。如果要兩家並存，新進業者必須要能提供目前尼爾森所不能提供的數據與服務、產品差異化，讓廣告主們願意增加經費購買資訊，因此，如何把目前的收視率調查市場規模做大，凱擘才較有可能與尼爾森同時競爭。

目前凱擘 40% 的有線電視系統用戶，可以即時的反饋用戶觀看的使用行為，雖然是用戶而不是個人資料，但由於數量很大，因此對於目前經常低到 0.01 的收視，如果能直接計算使用者的數量，仍然可以比只有少數樣本的尼爾

森提供更多直接與豐富的資訊。不過，雖然凱擘與中華電信的 MOD 都能提供母體而不是樣本的資料，但由於都只有區域性、以及特定設備載具的使用者，對於廣告主來說，若只能提供局部的資訊而無法看到全貌，僅能提供有限的額外資訊，卻要花上多一倍的經費，面對目前逐年下滑的電視廣告來說便相常不易。

每家廣告代理商實際支付給尼爾森價格並不是固定的，而是要根據每一家業者實際上需要使用資料的員工人數、不同的資料內容、有多少連上傳資料庫的終端裝置等，因此，不同公司之間的價格差異頗大。而由於尼爾森提供的是完全壟斷市場的產品，因此，根據買方的能力與意願來定價，每家的價格不同，變成是完全差別取價，尼爾森可以獲得買方的消費者福利。目前大部分的國際廣告代理商，每年大約支付 3 佰萬至 8 佰萬不等來向尼爾森購買電視各種不同類型的收視率資料庫，由於尼爾森是壟斷市場，怕資訊不對稱的賣方亂開價，因此由廣告代理公會出面協調價格，以討論出在買方有限營收下的合理價格。

目前閱聽人觀看影視內容的方式，已經逐漸轉到筆電、平板與手機等個人載具，收看的地點也不限於客廳，更可以在任何想要的時間觀看影視，因此，廣告代理商除了希望能在不同平台測量收視情形外，更希望可以跨平台、可比較的統一指標，以方便廣告主比較與決策。雖然尼爾森已經在一些國家開始推出結合網路數位與電視的整合性指標，但台灣目前仍然沒有類似的服務。因此，有些較具規模的廣告代理商，就自行試著將所購買的尼爾森電視收視率，加上 Comscore 等網路公司的調整資料，整理出可以讓廣告主可以比較的數據。不過，如果能夠推出真正用相同 panels 調查不同平台的樣本數據，可以提供更精確的跨平台資訊，廣告代理商還是願意用合理的價格購買。

但在市場上對於整合傳統電視與手機網路新媒體的需求確實愈來愈高，例如，「女王密室」是個互動遊戲的電視節目，觀眾可以透過手機的 APP 與主持人與來賓玩遊戲闖關，答對題目而能留存到最後的觀眾，可以與來賓一起平分所贏得的獎金。相對於其他節目，「女王密室」的收視率還算不錯，不過製作人認為如果原本 1% 的收視率時，線上大約有 5000 使用者參與，但當線上玩家已經有超過 10000 人時，大約是增加了一倍，但電視收視率卻只有增加至 1.25%，大約只有 0.25%，當然不同的調查方式不能直接類比，不過明顯調查指標的不一致，尤其是認為低估了收視人數，將影響節目的廣告收入。

雖然凱擘的收視率數據仍然無法提供廣告市場交易的 token，但對於凱擘有線電視系統內部了解閱聽人詳細的使用行為，而能進一步安排隨選節目的檔期與類型，或是規劃各種的加值服務等，仍然可以因此有依循的資料。愛爾達也

有類似的想法，雖然所經營的 OTT 平台的用戶數不多，但由於原本就擁有這些版權的 all right，因此不用負擔額外的版權成本，但可以時時觀察到使用者在 OTT 平台上的使用行為，確實可以讓節目與平台經營者可以更了解使用者觀看節目的思維。

3、為何台灣 OTT 業者不合作

相對於其他國家，其實目前台灣的線上影視市場規模並不大，但並不是消費者不觀看線上影視，而是目前的內容不夠吸引人付費，而線上也還有不少免費的內容。雖然市場不大，但現在大大小小各種的 OTT 平台卻有數十個，主要原因是近年來的寬頻 CDN 可以依使用量計價，也有套裝的 UI 網路管理系統，大幅降低成本與進入門檻。

很多業者明顯是先求有、再求好，因此可以看到大部分的網頁 UI 介面並不友善，消費者不易找到有興趣的內容，寬頻連線品質不穩定，影視節目要不是舊片或沒有特色，就是大家的片庫來源差不多，費率也幾乎一樣，都是在\$149 上下，因此沒有差異化，也就無法吸引到更多的使用者，目前有些 OTT 的用戶數低到只有幾萬戶，較多用戶數的平台號稱有 60 萬，不過，很多業者卻說已經逐漸可以打平成本了，主要就是經營成本不高。

為何不合作，從合作賽局理論來說，如果要業者們合作，則合作所可以分到的利潤必須要大於不合作的利潤，才可能讓業者們有合作誘因。而合理的利潤分配是以該業者可以為合作所帶進來的貢獻度，以及其不可或缺的程度。例如，如果內容業者有非常吸引人的節目，或是系統業者可以提供上百萬有效率的 CDN 等，則是可以互補的合作模式，一家電信業者再加上幾家內容業者，則可能是較穩定的合作模式。

但目前結果是業者們沒有檯面上的積極合作，但仍有間接合作的模式，不過卻因此出現數十家 OTT 平台競爭，可是卻都沒有什麼特色的窘境。例如：電信業者經營 CDN 平台，內容業者透過上架分紅，少數 MG 買斷的方式，既有頻寬成本低，不花大錢買節目或製作內容，電信業認為風險低。類似的，有些握有節目版權的內容業者，有多少頻寬需求，再付多少的使用費用，而節目內容就用目前手上的 all right 版權即可，也不需要額外的版權成本，因此，同樣的也是成本與風險均低。

相對的，如果要是合作，由於目前的影視內容並沒有太大的吸引大，需要合作的業者們花更多的經費來投資購買、或是製作新的節目內容，不然就會是上述的各自經營即可。但由於有較多的不確定性，但相對的獲利風險高，也不

容易能分得合作後的利潤，因此，很多 OTT 業者就會回到先自己經營看看，之後如果有更好的機會，或許可以再討論看看。所以初期就出現數十家的 OTT 業者，大家都用較低的成本來經營，即使用戶數量與營收不高，但也不見得會損失太大，或至少少數還有利潤空間。不過，隨著國外大型 OTT 的競爭，如果只是維持小規模成本的經營，並不是長久之計，近期也逐漸開始有更多的合作討論。

例如：Netflix 先前就曾傳出有意與中華電信合作，但當時因雙方對於營收拆帳談不攏而作罷，最近雙方正在進行最後協商，可能模式一、Netflix 將提供 MOD 平台多個熱門影集或頻道，再依付費客戶的相關營收進行拆帳。或是模式二、為了提升消費者收視品質，Netflix 有意將傳送視頻影音的伺服器放在台灣，向中華電信租用 IDC 機房、伺服器、電路，以及內容傳遞網路。模式一才對中華電信 MOD 的發展有價值，可能因此增加新的訂戶數，模式二則只是銷售頻寬服務，不過，至少都可以看到業者透過合作來擴大市場的佔有率。

4、中國影視集團化與創新發展

2015 年中國光是電影票房就高達 400 億人民幣（約 2000 億新台幣），2014 年網路廣告也首度超越電視廣告來到 1500 億人民幣（6000 億新台幣），雖然中國影視市場規模遠比台灣市場要大上好幾十倍，但目前線上影視 OTT 市場上，已經明顯形成 BAT 三大集團：百度 B（愛奇藝）、阿里 A（優酷土豆）、騰訊 T（騰訊視頻）。

這三大集團都是從網路服務起家，原本主要業務也不是影視服務，例如百度搜尋引擎、阿里巴巴的電子商務、與騰訊即時通訊軟體等，但由於網路平台的外部性效益與多服務整合，目前 BAT 都積極跨入影視內容製作與平台，現有的愛奇藝、優酷土豆與騰訊視頻等，都有上億的使用者，在大者恒大的效果，接高了投資的進入門檻，也壟斷了目前線上影視平台市場。

由於這些影視平台的母公司都是由新創的網路公司起家，而不是傳統的影視內容製作公司，因此企業組織文化特別重視創新與技術，愛奇藝就號稱內部科技專業人才一定要佔一半的員工數目，以科技創新領導市場。例如：過去網路平台如果要同時服務上佰萬的使用者，伺服器與頻寬就已經無法負荷了，但目前 BAT 的研發團隊所開發的 CDN（content delivery network），透過分散伺服器與有效分配效能，可以同時服務上億的影視使用者。

同樣的，由於有比例甚高的資訊人才，因此能夠在集團內就時時刻刻產生的數據資料進行處理。例如：愛奇藝可以透過使用者的收視習慣，精確的推出

他所感興趣的內容，或是所有新開拍的戲劇，可以透過網路使用分析，了解那部小說受到關注、那些演員有要好的口碑，演員與電視劇題材間的關聯度等。

雖然中國 BAT 壟斷影視平台，但也仍然還沒有真正賺錢，但由於影視內容是吸引線上人氣重要的競爭策略，因此，各家母公司也還是持續投資在購買或是製作新的影片。訪談中的主要專業主管都意識到內容才是競爭的核心，雖然要花很多預算，但也都做好了要打持續戰的準備，也因此近幾年的影視節目經費動則一小時上千萬新台幣，甚至是千萬人民幣，一集甚至是台灣整檔的預算。

影視節目製作最重要的就是要有好的故事，不管是小說或是漫畫，甚至是動漫與遊戲，例如美國漫威英雄電影一部接著一部，而當紅的《琅琊榜》、《半月傳》皆為改編自網路小說的電視劇，這些由熱門原創小說改編而成的電視劇，就是所謂的 IP 劇。目前中國主要的小說、動漫與遊戲網站，也都由 BAT 介入經營，暢銷或吸引人的故事版權也在多年前被 BAT 所購買了，因此不只有影視戲劇可以拍，也有更多 IP 產品可以銷售，每年投入上百億人民幣的預算製作影視節目，不只是單純的目廣告與使用者付費，還可以從週邊商品，甚至是股市等各種綜效回本。

受訪的遊戲公司也跨入影視製作，原本只向日本購買改編自漫畫版權的遊戲版權，也增加影視製作等的 all right 版權，由於中國的遊戲產值成本快速，一款暢銷的遊戲可以有數十億人民幣的市值，通常也會有快上億的行銷費用，業者們目前將部分行銷費用移來製作戲劇節目，製作成本也可以有幾億新台幣，如果找台灣的團隊製作，其實整體預算是很充裕的，如果戲劇大賣，還能有更多的版權銷售與廣告收入等。由這個例子可以看到，不只是原本與 OTT 平台有關的影視業者投入戲劇製作，其他相關的內容業者，也都爭取進入市場，整合行銷費用，可以有跨各種週邊商品的獲利空間。

5、台灣影視企業創新的困難

相對於中國影視市場規模大，不管是傳統電視電影，或是從網路科技起家，都是朝向集團化、與行動網路開放平台的趨勢。影視內容只是集團內容服務的一部分，可以透過集團內各種 IP 資源整合，或是交叉補貼的方式投資，影視內容需要資本密集投資，需要是一個看得到未來市場的想像，中國影視市場的擴張，其實是業者們對未來的信心，願意持續投入資金與人才培養。

相對的，台灣原本的影視市場規模就不大，大部分的業者都是中小企業，只有電信與有線電視 MSO 算是資本額較大的公司。目前業者雖然都有投入

OTT 的影視平台經營，但規模與邏輯仍接近之前數位音樂、電子書的經營模式，因為競爭對手有類似服務，或是透過電信平台可以容易接觸到消費者，但卻沒有真正投入內容製作。

不過，或許是近年來語音與寬頻市場的飽和，電信業者們確實需要擴大市場至內容製作，因此有愈來愈多的業者開始逐漸整合資源，或是實際投資內容。例如：在富邦集團重新分工金融與電信媒體兩大集團後，未來除了整合行動、固網與有線電視系統外，也開始嘗試電影投資；亞太電信則是透過董事長個人併購台灣寬頻，結合行動與有線的最後一哩；而中華電信受限於黨政軍條款，對於內容製作一直是無法真正投入。

影視創新可以是來自既有業者，也可能有更多破壞式的創新來自外部，但目前台灣的影視製作環境不佳，電視廣告量下滑，因此業者們不敢有太多投資。但相對的，數位廣告今年首度超越電視廣告，消費者的媒體使用習慣已經轉向行動與數位載具，如果有好的付費與商業模式，加上能吸引人的影視故事，其實還是有成長空間。

五、 結論：

觀察中國影視平台與集團組織的運作，很多的經營邏輯早已經超越傳統的影視製作思維，而是建立在如何透過互連網，滿足消費者各種內容需求的戰略。因此，內部員工有大量比例是具備資訊科技背景，公司本部也是在北京中關村的科技園區，員工年輕、有拼勁，集團橫向業務的資源共享與相互競爭，例如騰訊的 QQ、WeChat、動漫、遊戲、體育與戲劇整合成果，早已經不是台灣還停留在傳統影視手工業製作所能比擬了。

由於代工產業的經濟結構，台灣廣告規模成長幅度有限，電視廣告量逐年減少，2016 年數位廣告已經超越電視廣告，但傳統電視製作與平台並不沒有積極跨入行動、互動與網路的影視商業模式，而陷入所謂「創新的兩難」，雖然理解需要創新改變，但由於既有的獲利模式仍然佔有較高的比例，因此不敢輕言放棄，而因為目前營收有限，也就在新創的投資相對保守，但在有限的投入是不可能具有具體的創新成果，因此又認為或許創新也沒有用的守舊思維。

由於影視競爭愈來愈激烈，節目製作與人才培育都需要愈來愈多的資金投入，靠傳統廣告費的商業模式已經無法支應，內容製作與平台都需要有更多跨界業者投入，不管是電信、出版、遊戲與電子商務等，集團化的跨媒體經營才可能生存，不然在龐大中國市場旁的台灣影視產業，最終將落入蠶食鯨吞的結果，缺乏影視製作產業，絡將失去文化的主體性。

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國科會補助專題研究計畫成果報告自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值(簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性)、是否適合在學術期刊發表或申請專利、主要發現或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

達成目標

未達成目標(請說明，以 100 字為限)

實驗失敗

因故實驗中斷

其他原因

說明：

2. 研究成果在學術期刊發表或申請專利等情形：

研討會論文： 已發表 2 篇 未發表之文稿 撰寫中 無

論文： 已發表 未發表之文稿 撰寫中 無

專利： 已獲得 申請中 無

技轉： 已技轉 洽談中 無

其他：(以 100 字為限)

3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值(簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性)(以 500 字為限)

過去媒介經濟與產業分析，較偏重在市場結構分析與競爭策略，本研究從「科技創新」與「商業模式」的學術研究角度，提供台灣傳播學門思考企業組織創新文化，與 OTT 影視價值鏈的商業模式，檢視新媒體對影視產業衝擊。台灣影視產業的困境已經在關鍵的十字路口，原本的製作優勢不但已經被對岸取代，目前也正透過影視平台的規模經濟與邊際成本效益，進而吸引台灣節目上架、觀眾收視與廣告轉向，如此加速在地影視產業空洞化。本研究透過訪談近 20 位台灣大數據與 OTT 平台，以及中國 OTT 等新媒體 13 位專業經理人，後續將在半年內整理成 2-3 篇的研究論文發表，了解目前台灣影視產業面臨到的實際困難，希望透過中國近年在新媒體的快速發展經驗，也能重新發揮台灣資訊科技的軟實力，協助翻轉影視創新與加值的可能。

科技部補助專題研究計畫執行國際合作與移地研究

心得報告

日期：105 年 9 月 30 日

計畫編號	MOST 104-2410-H-004 -112		
計畫名稱	台灣影視產業困境與轉機：科技創新與新商業模式		
出國人員姓名	曾國峰	服務機構及職稱	廣電系副教授
出國時間	105 年 8 月 21 日至 105 年 9 月 3 日	出國地點	上海、北京
出國研究目的	<input checked="" type="checkbox"/> 深度訪談 <input checked="" type="checkbox"/> 田野調查 <input type="checkbox"/> 實驗 <input type="checkbox"/> 國際合作研究 <input type="checkbox"/> 使用國外研究設施		

一、執行移地研究過程

8 月 21 日下午從台北至上海，8 月 27 日再從上海飛至北京，9 月 3 日從北京回到台北。在上海與北京一共進行了 13 位影視相關專業經理人的訪談，同時了解企業組織內部運作的田野調查。

二、研究成果

本次訪談了中國主要的三大 OTT 業者，包括愛奇藝、優酷土豆與騰訊，同時還有上海文廣傳媒、百視通與克頓傳媒製作公司，另外也有從電玩涉入影視製作的愷英網絡、北京歌華有線電視、樂視影視，台灣駐北京的凱擘影業，以及兩位資深的台灣電視製作人，涵蓋了各種不同的影視角度。希望可以在半年內將整理成期刊論文發表，以提供各界對中國影視近年在創新與商業模式快速發展的了解。

三、建議

過去數十年來兩岸的影視交流來往，從早期台灣輸出人才與經驗，到現在中國不僅影視市場與資金是台灣的上百倍，人才與製作能力向國際看齊，而所製作的節目內容，更是大量低價的佔領台灣的各種影視平台。討論台灣影視產業困境與機會時，不能不了解中國影視對台灣的衝擊，但學術論文卻很少有詳實對中國近年影視市場發展的研究。

本研究原本的主體是台灣影視產業，但在二個星期的移地研究後發現，中國影視產業對台灣的影響是超乎想像。建議要制訂台灣影視政策的決策者，應該多了解現在兩岸影視失衡情形，不只是產業經濟規模無法競爭，更是失去了文化話語權的問題。

行政院國家科學委員會補助國內專家學者出席國際學術

會議報告

105 年 7 月 31 日

報告人姓名	曾國峰 Kuo-Feng Tseng	服務機構及職稱	政大廣電系
會議時間 會議地點	June 9th – 13rd 2016 Fukuoka, Japan	本會核定補助文號	MOST 104-2410-H-004 -112
會議名稱	2016 International Communication Association, "Communication through Power"		
發表論文 題目	The Competition of Television Ratings: Can New Measurement Break the Monopoly?		

報告內容應包括下列各項：

一、參加會議經過

從台北至福岡參加為期五天的學術研討會，並發表一篇探討是否新的新收視調查方式可以打破尼爾森市場壟斷的論文。

二、與會心得

ICA 是全球最大的傳播學術學會，每年研討會議都有上千位國際學者、學生與業者參與，研討會的主題與面向也都相當多元，包含各種的傳播次領域研究。本論文發表的場次剛好也有其他論文主題是有關新的收視率調查方式，大家分享了不同國家目前電視與網路調查所面臨到的問題，以及新的大數據分析的可能應用。

三、建議

雖然前幾年凱擘與資策會就已經持續發佈「新媒體閱聽行為調查數據」，但由於凱擘目前雙向機上盒用戶的大數據統計是家戶而不是個人，只有 40% 的凱擘用戶，也不是有代表性的樣本，雖然是所有使用者的大數據，但卻無法滿足廣告主與代理商的需求。近年不斷有產業與學界希望政府可以介入收視率調查市場，打破目前尼爾森壟斷的問題，隨著 2016 年電視廣告已經比數位廣告的規模要小，其實很難再有一家只是提供相同服務的新進業者。但相對的行動、數位、網路、社群等新媒體調查的廣告量與需求卻不斷增加，影視內容的觀看行為也轉移至新媒體而不是傳統電視，業者們應該既早介入這些使用行為的分析，不只是可以轉為廣告交易的貨幣，更能透過對消費者使用行為的了解，提供更好的影視內容服務。

四、攜回資料名稱及內容

會議手冊、論文、panel 的紙本與電子檔資料。

行政院國家科學委員會補助國內專家學者出席國際學術

會議報告

105 年 7 月 31 日

報告人姓名	曾國峰 Kuo-Feng Tseng	服務機構及職稱	政大廣電系
會議時間 會議地點	June 26 th – 30 th 2016 Taipei, Taiwan	本會核定補助文號	MOST 104-2410-H-004 -112
會議名稱	21 st Biennial Conference of the International Telecommunications Society “Interconnecting Everything: Harnessing Business, Policy and Smart Societies”		
發表論文 題目	Why not Cooperative among OTT Players in Taiwan?		

報告內容應包括下列各項：

一、參加會議經過

今年是國際電信學會 ITS 首次在台北舉辦為期四天的學術年會（2011 年舉辦過區域性研討會），除了參與會議中的不同 panels，並發表一篇透過合作賽局理論討論為何台灣 OTT 業者無法合作，導致市場規模不大，但卻有數十家 OTT 業者的論文。

二、與會心得

ITS 是國際電訊協會，討論的內容包括數位匯流下的電訊、媒體與網路的技術、經濟產業、政策法規與消費者行為，最近幾年 OTT 的議題也經常被討論，除了是否需要納入法規，以及網路中立性問題外，較少有討論彼此之間的市場競爭與策略，因此會議發表過程，有不少與會學者有興趣了解台灣的影視環境，以及 OTT 業者間非合作賽局的互動，甚至在會議之後，仍然持續討論。

三、建議

今年因為 ITS 是在台灣舉辦，因此有不少的國際學者對台灣相關議題的 panels 有較高興趣，出席人數相對於其他場次人數較多，可以透過這樣的機會分享與討論不同國家新媒體競爭的現況與問題。相對於其他國家 OTT 的快速發展，台灣 OTT 雖然有不少業者，但其實規模與產值都不高，加上不少具規模的境外 OTT 業者在 2016 年開始提供服務，對既在地業者產生不少衝擊。尤其台灣大部分的 OTT 業者的節目內容相近，不少都是購買自日韓中美國家，即使未來平台規模擴大了，如果不能吸引更多影視製作投入，也只是其他國家的影視殖民。

四、攜回資料名稱及內容

會議手冊、論文、panel 的紙本與電子檔資料。

2016 International Communication Association
Communication through Power

FUKUOKA, Japan

9th – 13rd June, 2016

**The Competition of Television Ratings:
Can New Measurement Break the Monopoly?**

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Abstract

The ratings data primarily are used by media outlets and advertisers to determine advertising rates, to assess the performance of media content, and to develop strategies related to the production of contents. Establishing an audience measurement service requires huge capital investments and the markets are usually natural monopolies. As the digitalization of cable systems in Taiwan, the MSOs can provide census data of subscribers as another currency for sale. However, after two years, Nielsen still hold the monopoly power in Taiwan's television ratings industry. This study interviewed ten professional managers and took the field observation of digital cable servers to unveil the factors of monopoly. The results show that the existing demographics-based, exposure-focused audience ratings will not be dislodged. Other census data of measurement on mobile engagement and social TV analytics will take hold, and will likely persist as an additional source of value in the audience marketplace.

I. Introduction

The advertising-supported media have functioned as three-way markets among media, consumers, and advertisers. The media have attracted audiences that they in turn have re-sold to advertisers. Media audience measurement companies have been the neutral arbiters of the process, providing the "currency" of exchange between media buyers and sellers.

Because of the high cost of collecting data and the reluctance of market participants to accept multiple "currencies" with differing values, there has tended to be only one single, dominant supplier of media audience data within each media sector (e.g., in the United States, Nielsen for TV, Arbitron for radio, MRI for magazines, etc) (McDonald, 2008). Economies of scale as well as the convenience of having to deal with one currency are the most important factors due to which television audience measurement markets are usually single provider monopolies (Napoli, 2003).

As new technology changes the way audiences consume media, the greater the number content options (i.e. channels) available, the more challenging it is to accurately and reliably determine the ratings for these channels when relying on traditional panel-based measurement systems. This is because panels need to become larger and larger to adequately account for the number of channels. Channel capacity has expanded faster than sample sizes can keep up. Many of the over 500 television networks available in the United States today have average ratings that are too small for Nielsen to even report (Napoli, 2011b).

In the past two decades, several audience measurement firms had failed to challenge Nielsen monopoly in the Taiwan television ratings market. This study will interview ten professional managers and take the field observation of digital cable servers to unveil the factors of monopoly. As the trends of media fragmentation and audience autonomy, can new digital entrants provide alternative currency to coexist with Nielsen in the audience marketplace?

II. Literature Review

1. Audience measurement industry is a natural monopoly

A key characteristic of audience measurement is the dominance of very few—and often only a single—provider, to ensure that all marketplace participants are operating under the same perceptions of current marketplace conditions and performance. As such, marketplace participants considering embracing a new measurement may be discouraged if they are confronted with multiple, competing—even conflicting—sources of this market information, each of which carries its own access costs (Kosterich and Napoli, 2015).

Between 1985 and 1999, Buzzard (2002) notes four instances in the United States when competitors, AGB, Percy, Arbitron and SMART, challenged Nielsen for measuring national TV ratings. The eventual outcome of all such contests has been the reinstatement of one provider as an audience measurement monopoly. Nielsen has remained that monopoly in the U.S. national television ratings market for over six decades. Outside the United States, most markets for audience measurement worldwide too have been single provider monopolies (Bourdon and Méadel, 2011; Taneja & Mamoria, 2012).

Nielsen was able to maintain its monopoly through a series of strategies that effectively warded off smaller competitors. The first important event was patenting the meter method. This action gave the Nielsen protection from competition, or monopoly power. Nielsen's patent gave the company the exclusive right to use the meter and prohibited imitators from using the same method. A second tactic used by Nielsen was its considerable economic muscle. Without competition to stimulate new product development, Nielsen's research and development energy shifted from innovation to perfection of their existing processes. (Buzzard, 2002).

It is the entrepreneurial and investment functions that raise the greatest barriers to entry in the ratings field. Although more innovative and responsive to the marketplace, new entrants stumble here because the industry, despite initial encouragement and early financial backing, is reluctant to accept necessary changes in the status quo or to put the capital necessary for these functions at risk. It is this hesitation that allows monopolists like Nielsen to sustain dominance by using time-tested economic and legal maneuvers to maintain their position (Buzzard, 2002).

2. New currencies coexist in the audience fragmentation and autonomy market

Contemporary audience evolution is being driven, in large part, by the technological changes that are transforming how audiences use media. The two key phenomena that are at the core of these changes—*media/audience fragmentation* and *audience autonomy* (Napoli, 2011a).

For example, most cable networks have audiences that are too small to even be

reported by established panel based audience measurement systems. Nielsen is able to provide audience ratings for only about 80 of the more than 500 cable networks in operation in the United States. The more than 400 remaining networks have audiences that are, on average, simply too small to be accurately captured by the roughly 25,000 households that are currently included in Nielsen's national U.S. television audience measurement sample (Napoli, 2012).

While one could argue that the measurement firms simply should increase their sample sizes, we must keep in mind that increasing sample sizes is costly. The addition of these new channels, with their very small audiences (and thus very small revenue streams), does not always add enough subscription revenues to the measurement firms' bottom line to sufficiently incentivize such sample size increases (Napoli, 2011b).

This situation is further complicated by the fact that content can now be consumed across multiple media platforms and audiences can be able to control their ways to consume content. Thus, for instance, a television program can be watched on television when it is aired by a broadcast or cable network, recorded on a DVR and watched later, watched online via a streaming media service, downloaded and watched on an iPod, or even watched via a cellular phone (Napoli, 2011b).

Thus, the increasing autonomy facilitated by the new media environment is working against traditional means of controlling media audiences and hence making their behaviors less predictable. Moreover, emerging technologies and services, such as interactive television and video-on-demand, promise even greater audience autonomy and additional challenges to the process of predicting audience behavior

(Napoli, 2001).

Taneja (2013) argued that audience measurement markets need not be single provider monopolies from the niche theory of media competition to identify mechanisms. He interviewed executives in the Indian television market on how they used information available from two competing rating services. Although market participants recognized only one system as the currency for trading advertising time, many used the second system selectively for improving network performance. Therefore, fragmented markets can support multiple systems if they serve distinct institutional interests. Napoli (2011a) posited that instead of one audience currency, media markets in the near future would afford “a basket of currencies” that would simultaneously circulate in the marketplace.

Historically as witnessed in audience measurement, when a new provider challenges an incumbent, there has been a high niche overlap between the two products. Further, ratings providers usually compete for limited resources (the ability of client organizations such as broadcasters and advertisers to pay for ratings data). Hence one measurement service, the provider with competitive superiority has prevailed, restoring the monopoly status. Yet, according to niche theory, a new audience measurement provider should be able to coexist with a dominant existing provider, if the former has a low niche overlap with the latter (Taneja, 2013).

3. Social TV and new audience measurement

The counterbalance to this decline in the reliability and comprehensiveness of traditional ratings data as a result of media and audience fragmentation is the institutionalization of alternative metrics for media consumption resulting from the

increased interactivity of the new media environment. That is, while the new media environment makes it increasingly difficult to determine exposure-based audience ratings, it makes it easier to capture and aggregate other aspects of media consumption, such as audience engagement, audience appreciation, or audience recall of the content they have consumed (Napoli, 2011b).

Because new media technologies are increasingly interactive, various forms of audience response can be captured and analyzed. Now, audience feedback and participation via interactive television set-top boxes, audience discussion in online forums and chat rooms, and behavioral responses in terms of ad-clicking or product-purchasing behaviors can be immediately gathered, aggregated, analyzed, and, ultimately, used as criteria for setting advertising rates and making strategic decisions about content production and placement (Napoli, 2011b).

Social media analytics are beginning to play a role in how television program success is measured, and in how advertising dollars are allocated across programs. Essentially, then, the emergence of social TV analytics represents the possibility of a new market information regime taking hold in the audience marketplace (Kosterich and Napoli, 2015).

Whereas Nielsen ratings measure audience exposure, these new services measure audience engagement. Consequently, social TV analytics data produce a very different portrait of which shows are succeeding and which are failing. Furthermore, social TV analytics serve as a means of providing insights for the large number of programs and networks with audiences that are too small to be measured and reported by the Nielsen system, which has had difficulty keeping up with the

increasingly fragmented television audience (Kosterich and Napoli, 2015).

In order to solve those problems, Nielsen, for example, announced plans to measure viewership from both mobile viewing and third-party streaming platforms like Amazon and Netflix. Social media analytics have emerged as the primary means by which audience measurement is moving beyond exposure to television programs and embracing metrics that capture other aspects of audience behavior. A key point of distinction, obviously, is that whereas traditional TV ratings required individuals to agree to be part of the measurement sample, social media metrics draw from the online population's expressions of their viewing habits, reactions, and opinions (Kosterich and Napoli, 2015).

With the 2012 acquisition of social TV metrics company SocialGuide, Nielsen began what would become a long line of purchases and forays into the realm of social TV analytics. Such acquisitions allow Nielsen to subsume would-be competitors into their own operation. These strategic moves help strengthen Nielsen's position as the legacy incumbent, thereby helping to institutionalize social TV analytics in its position as a supplementary market information regime. By evolving into a "one stop shop" for both currencies, Nielsen is able to discourage clients from making an either-or decision in relation to their primary market information regime and, in so doing, increases the likelihood of continued use of traditional ratings data (in which the firm has a substantial investment) (Kosterich and Napoli, 2015).

III. Taiwan Television Industry, Research Questions and Methodology

Currently, the subscription of cable television services is about 60% and five millions subscribers of the five MSOs cable systems in Taiwan. Except for the cable

services, the biggest telecommunication company, Chunghwa Telecom (CHT), also provides the linear multichannel and on demand video services (multimedia on demand: MOD) with over 1.3 million subscribers. The 40 percent of them also subscribe to the cable services, because most of the local channels are controlled by the MSOs and exclusively can be watched only in the cable systems.

The penetration of the digital multichannel cable television service is near 90% at the end of 2015 year. There are around 100 channels in the basic tier and the other 100 channels in the expanded digital tier. Therefore, most of the ratings are very small and many of them are usually below 0.1. The advertising market for the cable television is 781 million US dollars. The average monthly fee for the basic tier service is \$15.6 (\$1:32 NTD).

Nielsen entered the television audience measurement since 1992 year in Taiwan. There are 1800 audience samples for the television ratings. For the past two decades, there were several competitors with similar panel based ratings services but all failed eventually. For example, Broadcaster invested by one Japanese Video Research, was founded in 2001, but left the rating market in 2005 without the recognition of reliable audience measurement from the international advertising agents.

Two years ago, KBRO, the second largest MSOs, began to collect massive user behaviors in their digital cable television systems. Although there are over million cable subscribers in the franchises, only 40% of them have installed two-way set-top boxes to upstream log data back to the servers. However, after two years, no any advertising and media agents bought any the rating data from KBRO. Furthermore,

instead of analyzing the user census data and selling the rating information, CHT MOD actually requested Nielsen to set up the other rating service of 4000 audience sample through CHT's existing set-top boxes (Figure 1). Therefore, Nielsen is still the only one ratings provider and the currency decides the allocation of advertising revenues in Taiwan. So this study would like to ask:

RQ1: Why Nielsen ratings was still the only currency in the television ratings market in Taiwan?

RQ2: What can KBRO, the new digital new cable systems, provide the information from analyzing big data of user behaviors?

RQ3: What kind of the ratings information do the international advertising and media agents want for their clients, except for the traditional Nielsen ratings?

This study applied interview and field observation as the methodologies. The researcher interviewed 10 professional managers in the industries of ratings, cable systems, television channels, Nielsen, advertising and media agents in Taiwan. He also visited the headend servers of the cable systems to understand the way of census data calculation.

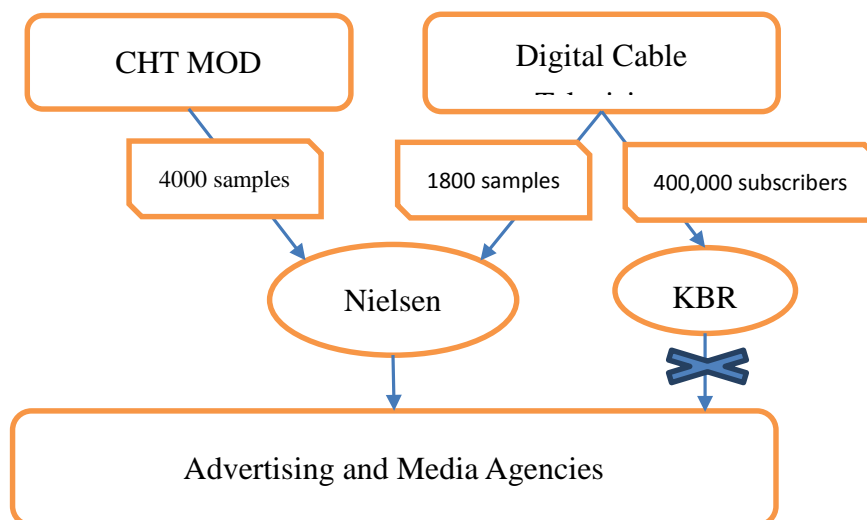


Figure 1. The relationship among contents, Nielsen and media agents in Taiwan

IV. Results and Discussion

1. Why Nielsen remains the monopoly in Taiwan?

Although there was an important news of an alternative television rating system announced by KBRO two years ago, the managers of KBRO said that they actually never wanted to compete with the Nielsen ratings from the beginning. Although there are near 400,000 log data of subscribers up streamed every minutes, those are household not individual without demographic information. Besides, only 40% of the overall KBRO subscribers with two-way set-top boxes can uploaded user behavior data. KBRO also only take 25% of all cable subscribers in Taiwan and most of them located in the Northern cities, so there may be bias in their cable subscribers even it is census data.

For example, there could be systematic difference between Nielsen and KBRO in news rating (illustrated in table 1), because the ratings of news channels could be watched more from certain political party preferences of citizens in Taiwan. Such as, the ratings of FTV was significantly less in KBRO, since there is less subscribers watch FTV in the Northern cities.

Table 1. The News ratings comparison between Nielsen and KBRO

	Nielsen Ratings	KBRO	Difference
TVBS	2.63	2.24	-0.39
FTV	2.05	0.88	-1.17
EBC	1.99	2.12	+0.13
ERA	1.81	1.22	-0.59
SET	1.59	1.26	-0.33
CTI	1.53	1.40	-0.13

*Ratings are the average 15-minute ratings of 18:00 to 19:59PM on May 19, 2014.

Two measurers using different methods of sampling and different technologies will produce different figures. There have been some situations of coexistence of different figures, but never for long, in situations where commercial competition prevails (Balnaves and O'Regan, 2011). Because ratings function as the "currency" in the audience marketplace, there seldom has been sufficient commitment from media outlets or advertisers to financially support competing measurement services to provide alternative currencies. The need to analyze, and haggle over, multiple potentially conflicting ratings reports for the same piece of content would add greater uncertainty and analytical burdens to the audience marketplace. Based on these tendencies, one might even argue that the ratings business is a natural monopoly (Napoli, 2011).

Unlike most advertising sold based on the individual program in many countries, the advertising is calculated on CPRP (cost per rating point) in Taiwan. For example, the media agent buy the \$150 USD for CPRP guarantee from certain program. However, as the program rating actually decline to only 0.8 on the air, the media agent can ask the television channel to compensate for another 0.4 ratings of \$75 USD of CPRP from other programs. Therefore, the ratings competition is more serious in Taiwan and should be consistent across different platforms, so it is usually a monopoly market.

As Bermejor (2007) mentioned that unlike with panels, it is much more difficult to gather the highly desirable demographic data from audience members when data are being gathered via television set-top boxes. But without an accompanying effort

to gather demographic data, set-top boxes provide only very basic information about audience exposure – essentially, how many televisions tuned into a particular program (Napoli, 2011b). Therefore, it is hard for KBRO to use the household data to compete with Nielsen data of demography.

Why not KBRO invests the software for subscribers to login as they begin to watch programs and add the demographic information? The KBRO managers argued that the rating annual revenue is only \$70 million US dollars annually. Since the economics of scale and natural monopoly characteristics, KBRO did not consider that is a good investments of software and hardware of set-top boxes to collect user behaviors and only generates a similar currency of Nielsen.

In addition, most of the buyers of the television ratings are the international advertising and media agents. Currently, 90% of the media buying business is controlled by those international conglomerates in Taiwan. They consider Nielsen more reliable and the data can be compared with other countries worldwide. That is why CHT also authorized Nielsen to help set up the MOD rating investigating mechanism, instead of themselves, even though CHT had very strong IT research and development. CHT needs the brand of Nielsen for those international media agents to recognize the fairness and objectivity.

2. The opportunities of new entrants in the audience fragmentation market

Even though KBRO invest to include the personal demographic data of cable subscribers, the ratings is not different from those index Nielsen already done. These must appeal to distinct institutional interests. In other words, to successfully

coexist, a second measurement system should be able to provide additional information that clients perceive as new and different enough from information the first system provides, to justify the additional costs of subscription (Taneja, 2013).

It seems reasonable to predict at this point that the existing institutional structure—traditional demographics-based, exposure-focused audience ratings—will not be dislodged, but rather a secondary, supplementary market information regime based on social TV analytics will take hold, and will likely persist as an additional source of value in the audience marketplace. It is also possible that a new institutional structure can co-exist in some way with the old (Kosterich and Napoli, 2015).

Currently KBRO applied those census data of 400,000 subscribers to arrange the television programming schedule and marketing for their vertical integrated channels. CHT also had the information of 1.2 million subscribers and could calculate the way they spent in the on-demand services. In addition, there are over 200 channels and most of the ratings in both KBRO and CHT MOD is around 0.01. The audiences are fragment and the census data can be complement to help them understand their audience behaviors.

Besides, as mentioned by the KBRO managers that the television ratings business is only \$70 million US dollars which is far smaller than \$781 million US dollar of the advertising revenue in Taiwan. Audience measurement systems should not be theorized solely as the currency for advertising trading, as their usage differs among different kinds of market participants (Taneja, 2013). Especially, the television ratings and advertising revenues are continuously declining, and on the

other hand, the digital, mobile and interactive services of usages and advertising business raise in two digits every year.

In the United States, cable users only represent a fraction of the total universe of television viewers. Even if one had a complete census of the program viewing of all of the subscribers to every cable system, this would still exclude information about those who get their TV signal from other sources (e.g., satellite systems, internet. over-the-air broadcast) (McDonald, 2008).

Therefore, the tradeoff is clear: the data from a cable server can provide most granular detail on TV set usage, even if it lacks demographic details. Though cable households only represent a part of the universe of television viewers, the industry is poised to countenance a hybridization of data streams on TV viewing—with the sample-base probabilistic panels providing the overview of the market, but with the nonprobabilistic cable data providing a granular view of a key sector of the market (McDonald, 2008).

3. What advertising and media agency really needs?

The price that subscribers pay for the data, however, is anything but uniform. Pricing for commercial audience data is opaque. It is a function of factors such as the size of the organization seeking the data, the number of users of the data within the organization, or the number of computer terminals via which the data will be accessible (Napoli and Karaganis 2007). Thus, the amount paid by different subscribing organizations for the same data can vary widely.

Currently, most of the international advertising and media agents have to pay over \$100,000 to \$200,000 US dollars to buy various categories of television ratings from Nielsen in Taiwan. And, because there has historically been very little competition in the provision of ratings data, prices tend to be quite high (Napoli and Seaton 2007). Therefore, there is a Media Agency Association (MAA) in Taiwan to help negotiate a reasonable prices for those agents depending on their sale revenues and ratings categories.

In addition, the audience ratings with high prices alone could not provide sufficient information for the media agents to advise their clients as users watching television across different platforms. Although Nielsen began to integrate other methodology and sources to produce single index for sale in other countries, there is still no such services in Taiwan. Therefore, some of the media agents also calculate the ratings of Nielsen, online behavior of Comscore and buying data by themselves. If there are reliable data of either from pane-based or census across mobile, PC and television with single sources, the media agents are willing to pay for higher prices.

Because of the complexity of the situation, audience measurement companies struggle to keep up and to develop new ways for measuring audiences and their use of applications and mobile media. Not being able to accurately measure these new technical and behavioral developments means that advertisers have less insight on the return on investment (Jennes and Jierson, 2012).

In current practice, participants in the web media markets effect their own hybrids, mixing data from sample-based and non-sample-based sources to fit the requirements of the situation. Such provisional solutions are likely to become more

common with other media in the Long Tail future (McDonald, 2008).

For example, recently there is a program, *Mission of Queen*, which is an interactive game show that audiences can play with the program host and other online audiences through mobile APP. Since the audience winners can share the same amount money that the guest win after both of them answering ten questions correct. The ratings is OK, usually around 1% while there are about 50,000 users online. However the producer of the program argued that as the online users almost double, the Nielsen ratings only increased to 1.25%. The producer expected that Nielsen or other audience measurement can provide consistent data for them to sell their advertising.

V. Conclusion

The ratings industry is slow in keeping up with these changes since large, aggregated and linear TV audiences are still more valuable than the fragmented audience that accesses content through a different platform. The dependency on the standardized ratings is based on clarity of the business model for commercial linear TV, a lack of standardized ratings for other platforms or services such as VOD and broadcasters are still learning how to incorporate new digital possibilities with linear television (Seles, 2010).

Therefore, there is still only very few, or maybe only one monopoly in the television ratings industry. However, as the trends of audience fragmentation and autonomy in various media, the lines of inquiry proposed in the previous section reflect the notion that the future of the audience marketplace is likely to be one in

which there are “a basket of currencies.”

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21st Biennial Conference of the International
Telecommunications Society

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Taipei, Taiwan

26th -30th, June 2016

Why not Cooperative among OTT Players in Taiwan?

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Abstract

At the beginning of 2016 year, several traditional broadcasters, cable TV channels and telecommunications had launched OTT (over-the-top) services in Taiwan. However, the market of video consumption is not big enough to sustain so many OTTs corporations. Why not cooperative among those Taiwanese OTTs? This study will apply the framework of cooperative game theory to analyze the interaction among OTT players in Taiwan. The Shapley value of the telecom operators and the programming companies will be analyzed from the resources-based view. This study will also discuss whether there are enough transferable payoffs to support a core coalition in order to compete with the Chinese OTTs and Netflix from oversea.

I. Introduction

Although still dominated by standard television, the online TV industry is growing rapidly (Waterman et al, 2013). The traditional broadcasters, the cable channels and the telecommunications are launching OTT (over-the-top) TV services in many countries. However, Baccarne et al (2013) consider that although OTT TV might gain importance, a large scale video cord-cutting scenario is highly unlikely in the short run and it will be hard for 'OTT TV-only' services to replace the traditional television distributors.

In order to gain the unique resources to fulfill OTTs' competitive strategies, Ling et al (2013) found that the cooperation between contents owners and telecom operators was the mutual benefit strategy to each other in China (Ma et al, 2013). Except for the telecommunications operators, several broadcasters and the program providers also began to provide the OTT services in Taiwan at the beginning of 2016 year. However, the market of video consumption is not big enough and why not cooperative among those OTTs in Taiwan?

This study will apply the framework of cooperative game theory to analyze the interaction among OTT players in Taiwan. If an agreement is in the advantage of all those who are party to it, or if a threat can improve the payoffs to an agent, then rational beings will find ways to commit themselves to the agreement or the threat and enjoy the benefits that arise from the agreement or the credibility of the threat (McCain, 2013). The Shapley value of the telecom operators and the programming will be analyzed from the resources-based view and their impact on performance. Whether there are transferable payoffs to sustain a core coalition among those OTTs

in Taiwan in order to compete with the Chinese OTTs and Netflix from oversea.

II. Literature Reviews

1. OTTs competition: complement or substitution

One of the most prominent changes in today's industry is the far-reaching integration between traditional broadcast content and broadband delivery platforms. Lowering entry barriers and guaranteeing global reach, the online market has created opportunities for new players and disruptive platforms (think of YouTube, Netflix, Hulu) to enter this traditionally closed TV ecosystem. Over-the-top television (OTT TV) aggregators now allow TV producers and broadcasters to go directly to consumers, bypassing traditional network gatekeepers and access providers (Venturini, 2011).

Most studies show that OTT TV is mainly being domesticated as a complementary rather than as a substitutional source of television content. Banerjee *et al.* (2012), for example, argue that the consumption of television content is a multi-faceted complex experience and that each medium is linked to specific genres. They also show that OTT TV is becoming a major industry, but that this evolution only has a limited effect on traditional cable subscriptions.

The similar case was found in Korea. Kim et al (2016) adopted the theory of the niche to explain the competitive dynamics in video platform market. This theory is a unique framework to conceptualize and empirically measure the impact of new

media on the old one. It explains and predicts the existence, displacement, and extirpation of players in the ecosystem. To make up for the previous researches, multiple resources such as gratification and time spent using media are measured in this study. The result indicates that the case of the Korean market was significantly different from the case of America, in that competition between traditional pay TV and OTT was not severe.

However, at the turning point of 2016 years, as the bandwidth of networks continuously increases, the set-top box and the mobile device can provide high quality of video contents to all kind of multi-screens for customers. We can expect that OTTs will become very strong competitors to the traditional cable television in the following years all over the world.

2. Content providers to launch platform services

Many OTTs were established from the terrestrial TV or video production companies, because they decided to directly compete with the online video pirate. Hulu, another famous U.S. service that was started by a terrestrial TV consortium consisting of FOX, NBC, and ABC, launched its OTT service in 2008. Hulu's force is derived from its content power and business models; that is, a brand loyalty regarding TV content already exists among the consumer bases of FOX, NBC, and ABC. Hulu succeeded in creating a well-organized business model that consists of both free-of-charge and ad-supported options, while a subscription fee distinguishes Hulu Plus from Hulu (Kim et al, 2016).

MBC and SBS, the major terrestrial TV providers in South Korea, also launched poog in 2012. This service obtained as many as 2.4 million subscribers in just 17 months. Like Hulu, content power is poog's key asset, but poog obtains its content only from terrestrial TV; consequently, poog has had difficulty ensuring content diversity compared with its strongest competitor, tving, which also sources content from cable TV, CJ HelloVision, a multiple system program operator (MSP) that is one of the major cable TV providers in South Korea, launched the tving OTT service in 2010. Although tving is more expensive than other OTT services, it successfully attained 6 million subscribers; furthermore, tving has the "first-mover advantage" (Kim et al, 2016).

Gimpel (2015) suggested that content producers will remain in positions of power. Industry changes will affect television, home video, and feature film producers differently. Therefore, large media companies that provide an umbrella for diversified types of content creation will hedge their risks and remain strong. A key differentiator will be exclusive marquee content. Viewers will patronize the platform that offers their favorite programs. The right content collection can lock in customers, at least for the short- to medium-term.

3. Specific resources for OTTs to cooperate from resource-based view

The resource-based view (RBV) of the firm focuses on the assets, skills, capabilities, and so forth, tied to a firm that it uses to create competitive advantage in its product markets (Barney, 1991). Many factors may be resources, such as: plant and equipment; geographic location; knowledge and skills of employees, managers, and teams; corporate structure, culture, and control systems; and brand loyalty (Branco & Rodrigues, 2006).

Habann (2000) asked the question, which characteristics a resource must have to be "core", i.e. to ensure sustainable firm success, plays a central role in the realm of resource theory. The literature on the RBV deals with the following characteristics: capacity to generate value, non-imitability and non-substitutability. RBV scholars made two important assumptions: Firms within an industry may be heterogeneous, and resources may not be perfectly mobile across firms (Barney, 1991).

Heterogeneity suggests that no competing firms are identical in the resources they control. Intangible resources and capabilities are defined as “non-physical factors that are used to produce goods or provide services, or are otherwise expected to generate future economic benefits for the firm”. They include intellectual property assets, organizational assets and reputational assets. Intellectual property assets such as copyrights, patents, registered designs and trademarks are afforded legal protection through property rights. Such legal protection can create barriers to competitive duplication.

However, resources are not productive on their own and can only be a source of competitive advantage if they are used by firms to perform their activities. Thus, the analysis also needs to consider a firm’s “abilities to assemble, integrate, and manage these bundles of resources”, i.e. its capabilities (Russo and Fouts, 1997, p. 537). Capabilities are the outcome of organizational learning. They belong to the organization as a whole and are built from the learning of individual members or individual business units. Thus, a capability is seen in terms of the firm’s ability to integrate and extend the learning and experiences of its individual members

(Mathews, 2002; 2003).

Based on the resource-based view, what are the unique resources to set up and run OTT service in a long term? Video contents and the Internet infrastructure are the main factors to succeed. Both of them are limited core resources to set up OTT services from scratch. Whoever owns the IPTV copyright and controls the Internet bandwidth would be the possible to the OTT operators.

4. The framework of cooperation game

Cooperative game theory is applicable whenever the players in a game can form “coalitions,” groups that choose a common strategy to improve the payoffs to the members of the group. (McCain, 2008). Suppose there are N “players in the game.” An individual agent can be indicated by A_i with $i=1, \dots, N$. The usual assumption is that *any* group of agents in the “game” can form a coalition, and a coalition among agents A, B, and C would be denoted as $\{A, B, C\}$.

Suppose that A and B can secede together and realize a value of $v\{A, B\}$. They may insist that $v\{A\} + v\{B\}$ be at least $v\{A, B\}$ to give them the incentive to remain in the grand coalition. Other subgroups who might secede can make similar demands. But suppose that $v\{A, B, C\} < v\{A, B\} + v\{C\}$. Then there is no way to assign all three agents payoffs large enough to persuade them to stay in the grand coalition. Therefore, in order to sustain a stable coalition, each of the members should have a better payoff than they compete with one another.

However, how to decide how much each member can get from the payoffs in the coalitions. The Shapley value assigns payoffs to the members of the grand

coalition and tells us nothing else about the joint action of coalitions. To obtain the Shapley value, first suppose that the agents in the game are approached in the order A, B, C. Each is offered his *marginal contribution*: that is, A is offered $v\{A\}-v(\emptyset) = (A)$, B is offered $v\{A, B\}-v\{A\}$, and C is offered $v\{A, B, C\}-v\{A, B\}$. But this is somewhat arbitrary: the marginal contributions might have been different if they had been approached in a different order. Anyway, this *average of the marginal contributions* is the Shapley value (McCain, 2008). The example is presented in table 1 and the Shapley value of A, B, and C is 44, 24.5 and 31.5 with total 100.

Table 1. Example of Shapley value calculation

		π order	$\delta_{\pi}^G(A, B, C)$
v(c)=	80, if c={A}	(A, B, C)	(80, 7, 13)
	54, if c={B}	(A, C, B)	(80, 15, 5)
	70, if c={C}	(B, A, C)	(33, 54, 13)
	87, if c={A, B}	(B, C, A)	(28, 54, 18)
	85, if c={A, C}	(C, A, B)	(15, 15, 70)
	72, if c={B, C}	(C, B, A)	(28, 2, 70)
	100, if c={A, B, C}	\emptyset	(44, 24.5, 31.5)

In China, the State Administration of Radio, Film, and Television (SARFT) holds the license and is in charge of the integrated broadcast rights of IPTV, the telecom operators(TC) occupies the broadcast channel with the resources of Internet broadband exports and Internet Data Center(IDC). It can promote rapid development of IPTV if they cooperate with each other. However, they are independent and array with each other at present, the cooperation relationship between them is always difficult to reconcile, resulting in the slow development of IPTV (Deng, 2011). Ling (2013) builds a cooperation model between SARFT and TC based on the profit-sharing and explores their choices of cooperation strategy and

optimal yield decisions under the different level of profit-sharing.

The SARFT should provide IPTV with most program resources. Both SARFT and TC should choose competition if the profit-sharing between SARFT and TC is under the neighborhood of seven-three. Both of them should choose cooperation if the profit-sharing is in the neighborhood of seven-three. Their optimal cooperation strategy is (cooperation, competition) if the profit-sharing is above the neighborhood of seven-three. In Highly Cooperative Patter, SARFT is responsible for providing content and TC is responsible for conveying. For SARFT, his biggest advantage is content compared with TC.

III. Research Questions

In order to survive in the fierce competition of the digital convergence age, there are more and more telecommunication and media beginning to provide OTT video services in Taiwan. What are their niche resources compared to competitors, such as last mile infrastructure, contents or other unique property? If they want to form a cooperative coalition, how will they choose their complement partners and how to allocate their revenues? Will the entry of Netflix at the beginning of 2016 change the relationship between the telecom operators and program owners in Taiwan?

IV. Methodology

In order to conduct the comparative case studies of OTT players in Taiwan, this study collects and reviews most of newspaper, financial reports and academic database to formulate a variable table of unique resources. Besides, this study interviewed ten professional managers of the OTT players to understand their mind

thinking behind the strategies. Finally this study will apply the cooperative game theory as the framework to discuss how to allocate the revenue to maintain the OTT coalition stable.

Table 2. Comparison of OTTs in Taiwan

Types	Telecoms			Content Providers			
Company	CHTvideo	friDay	MyVideo	Vidol	4gTV	Fain TV	ELTA TV
Launch Time	2014.12	2015.11	2012.6	2016.3	2015.7	2016.1	2016.1
Channels	61	7	3	7	80	80	20
Channel price/m	\$5-6	Free	Free	Free	\$2-6	Free	\$2-5
VOD	1000	3000	3000	3000	2000	1500	2000
Users	2500,000	250,000	600,000	10,000	20,000	500,000	200,000

V. Results and Discussion

1. From the framework of Shapley value to discuss cooperation

Let us assume that there are two kinds of players, the telecoms (CHTvideo (C), MyVideo (M)) and the content providers (Vidol (V), ELTA (E)). The profit of the OTT coalition is equal to the revenues minus the costs. The revenues could come from the advertising and subscription fees. The costs to set up the OTT services are staff, platform software, broadband and content copyright.

There are 15 kinds of coalition among the four players: {C}, {M}, {V}, {E}, {C,M}, {C,V}, {C,E}, {M,V}, {M,E}, {V,E}, {C,M,V}, {C,M,E}, {C,V,E}, {M,V,E}, {C,M,V,E}. Currently the players established their individual OTT service, {C}, {M}, {V}, {E}, instead of any coalition. The interviews showed that the professional managers believed the profit share of coalition smaller than the earning by themselves because of few revenue to share and limited costs of copyright or broadband to invest.

CHTvideo and MyVideo will not form the coalition together because both of them are the Internet Service Providers. It is duplicated to have two broadband networks, so eliminating {C,M}, {C,M,V}, and {C,M,V,E}. For any coalition of one telecom and content providers, why Vidol and ELTA did not cooperate with the telecom? At the 2016 year, currently the cost of broadband is cheaper than before and the price is also flexible dependent on the volume of video streaming. So it is not necessary for the content providers to form the coalition if they can make more profit by themselves.

2. Content copyright is crucial to set up OTTs.

Gimpel (2015) argued that owning the hit contents is very important to set up the OTT. First, consumers will patronize the platforms that offer their favorite TV shows and films, giving producers of popular programming strong negotiating power within the ecosystem. Second, producers must offer a large catalogue of marquee content. Variety and scale are key principles of competing in platform-mediated markets. The independent producer with one hit film or single television series cannot threaten to withhold enough content from platforms to cause viewers to balk or switch to rival platforms. Therefore, producers without scale will have little negotiating power.

We can find the similar situation happened in Taiwan. Currently, except for the telecom operators, most of the OTTs are also the program producers or the content copyright agents in Taiwan. For example, the parent corporation of Vidol, SET TV, is the biggest program production company and owns over 4000 hours of dramas. The terrestrial broadcaster of 4gTV, FTV, own many IPTV copyright of cable and MOD

channels. The parent companies of Fain TV and ELTA TV also have the similar role of copyright programming agents.

Comparing to other video competitors, those copyright holders control the resources of the programs which is the key factor to provide the OTT services. If the new entry could not have enough contents, they would only be the empty pipe. In addition, they can establish the OTT services by spending as less content budget as possible and reduce the risk of uncertainty.

3. OTTs directly compete but also indirectly cooperate

At beginning of 2016, Netflix and Iqiyi (the biggest OTT in China) began to offer OTT services in Taiwan. Both have the original online dramas and hit contents to attract fans. For example, Iqiyi own the copyright of *Descendant of the Sun* produced by Korean Broadcast Station (KBS). Although there are still many pirate version online, many drama fans of *Descendant of the Sun* still subscribed to the Iqiyi's OTT service in Taiwan to watch the real time and high quality drama. For the other Taiwanese OTTs to compete with the big OTT platforms from oversea, they need to cooperate or share resources in some way to reduce costs.

Although OTTs directly compete with one another, they actually share resources that they did not have. For example, OTTs need as many programs as possible to attract audiences. Many of the OTTs allow their contents in their rival programming categories. For the telecom operators, they have the resources of Internet infrastructure, but have less programming. So they might provide discount fee of bandwidth and cooperate with the other OTTs who have variety of contents.

The reason to indirectly cooperate in the copyright of contents and Internet infrastructure is to reduce the establishment and maintenance costs. The revenue of subscription is still low at beginning, so the OTTs could not afford to invest too much sunk costs. Through this kind of cooperation, some of OTTs claim that they can survive in the long run, even with low subscription.

Since many OTTs only control parts of resources to set up and run the business, their Shapley values, the average of the marginal contributions is pretty low. In addition, currently the revenues of OTT subscription are also very small. The OTTs are more willing to establish their own online video services when they control many digital copyrights and the platform and bandwidth are low at the beginning of 2016 year.

4. Firms offering both pay TV and broadband will thrive

Economies of scope are key for the keystone platforms that control the physical network. Firms controlling the last-mile delivery infrastructure for both pay TV and broadband service are well poised to profit from the video industry regardless of whether TV revenues grow or consumers begin cord cutting. These firms will capture new profits from the growing demand (and willingness-to-pay) for broadband, and they are in the position to offset any decline in pay TV profits with increases in broadband charges (Gimpel, 2015).

Currently the big three telecoms already have had launched their OTT services. The CHT and Taiwan Mobile are also the conglomerate of IPTV and cable television systems. They begin to leverage their huge cable TV subscribers to negotiate with the

copyright agents for the hit contents with low costs. They may also bundle telephone, data, cable TV and OTT together to deter future new entrants.

Ganuza & Viencens (2014) focused on the interplay between the market of contents and telecom operators in Latin America. It analyzes two strategies related to the market of contents that have been – and are being –developed by traditional telecom operators: 1 Bundling services (fixed and mobile telephony, Internet and TV). 2 Development of proprietary OTT products. They have analyzed under what circumstances a combination of these strategies could be effective to deter OTT agents or to prevent cord-cutting.

VI. Summary

Although Waterman et al (2013) showed that TV Everywhere bundling and vertical integration could deter new entry into the online TV market. Currently, several new OTT entrants who already have hold many channels and program digital copyright began to provide online video services in Taiwan. They have sufficient programs and can run the business in a lower cost, although only few are attractive users to pay for.

Since several OTTs apply the low cost strategies of sharing or discounting digital copyright, Internet infrastructure and bandwidth. Therefore, even though they may not have many huge subscription payment now, they still can sustain the business model for a long run. There could be one or two giant OTTs with economics of scope and scope from the amount of audiences and bundles, to invest huge capital in programming. On the other hand, some small OTTs could still survive in the server

online video competition.

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科技部補助專題研究計畫執行國際合作與移地研究 心得報告

日期：105 年 9 月 30 日

計畫編號	MOST 104-2410-H-004 -112		
計畫名稱	台灣影視產業困境與轉機：科技創新與新商業模式		
出國人員姓名	曾國峰	服務機構及職稱	廣電系副教授
出國時間	105 年 8 月 21 日至 105 年 9 月 3 日	出國地點	上海、北京
出國研究目的	<input checked="" type="checkbox"/> 深度訪談 <input checked="" type="checkbox"/> 田野調查 <input type="checkbox"/> 實驗 <input type="checkbox"/> 國際合作研究 <input type="checkbox"/> 使用國外研究設施		

一、執行移地研究過程

8 月 21 日下午從台北至上海，8 月 27 日再從上海飛至北京，9 月 3 日從北京回到台北。在上海與北京一共進行了 13 位影視相關專業經理人的訪談，同時了解企業組織內部運作的田野調查。

二、研究成果

本次訪談了中國主要的三大 OTT 業者，包括愛奇藝、優酷土豆與騰訊，同時還有上海文廣傳媒、百視通與克頓傳媒製作公司，另外也有從電玩涉入影視製作的愷英網絡、北京歌華有線電視、樂視影視，台灣駐北京的凱擘影業，以及兩位資深的台灣電視製作人，涵蓋了各種不同的影視角度。希望可以在半年內將整理成期刊論文發表，以提供各界對中國影視近年在創新與商業模式快速發展的了解。

表 2，中國大陸影視產業經理人受訪名單

類型	姓名	職務
三大 OTT 業者	張天闊	愛奇藝市場部公關總監
	蘇文華	優酷土豆集團創新智能電視總經理
	王南	騰訊視頻智能電視部總經理
內容製作 IP 與版權	孫麗	克頓傳媒 IP 中心總經理
	*中階主管	上海文廣集團版權部
	*中階主管	東方明珠百視通版權部
有線電視	韓雯凱	北京歌華有線市場管銷部主任
電視平台	*中階主管	樂視影業經理

電視軟體	葉文鑫	快投上海視九信息科技有限公司執行長
網路遊戲	蔡明晃	愷英網絡影視中心總監
台灣影視版權	林美瑤	凱擘影藝北京總經理
台灣電視 製作人	張志鵬	上海光芒文化傳播總經理
	李方儒	上海新文化傳媒集團綜藝事業部總經理

*部分受訪者礙於公司內規，希望匿名受訪。

三、建議

過去數十年來兩岸的影視交流來往，從早期台灣輸出人才與經驗，到現在中國不僅影視市場與資金是台灣的上百倍，人才與製作能力向國際看齊，而所製作的節目內容，更是大量低價的佔領台灣的各種影視平台。討論台灣影視產業困境與機會時，不能不了解中國影視對台灣的衝擊，但學術論文卻很少有詳實對中國近年影視市場發展的研究。

本研究原本的主體是台灣影視產業，但在二個星期的移地研究後發現，中國影視產業對台灣的影響是超乎想像。建議要制訂台灣影視政策的決策者，應該多了解現在兩岸影視失衡情形，不只是產業經濟規模無法競爭，更是失去了文化話語權的問題。

四、研究心得

2015年中國光是電影票房就高達400億人民幣（約2000億新台幣），2014年網路廣告也首度超越電視廣告來到1500億人民幣（6000億新台幣），雖然中國影視市場規模遠比台灣市場要大上好幾十倍，但目前線上影視OTT市場上，已經明顯形成BAT三大集團：百度B（愛奇藝）、阿里A（優酷土豆）、騰訊T（騰訊視頻）。

這三大集團都是從網路服務起家，原本主要業務也不是影視服務，例如百度搜索引擎、阿里巴巴的電子商務、與騰訊即時通訊軟體等，但由於網路平台的外部性效益與多服務整合，目前BAT都積極跨入影視內容製作與平台，現有的愛奇藝、優酷土豆與騰訊視頻等，都有上億的使用者，在大者恒大的效果，接高了投資的進入門檻，也壟斷了目前線上影視平台市場。

由於這些影視平台的母公司都是由新創的網路公司起家，而不是傳統的影視內容製作公司，因此企業組織文化特別重視創新與技術，愛奇藝就號稱內部科技專業人才一定要佔一半的員工數目，以科技創新領導市場。例如：過去網路平台如果要同時服務上佰萬的使用者，伺服器與頻寬就已經無法負荷了，但目前BAT的研發團隊所開發的CDN（content delivery network），透過分散伺服器與有效分配效能，可以同時服務上億的影視使用者。

同樣的，由於有比例甚高的資訊人才，因此能夠在集團內就時時刻刻產生的數據資料進行處理。例如：愛奇藝可以透過使用者的收視習慣，精確的推出他所感興趣的內容，或是所有新開拍的戲劇，可以透過網路使用分析，了解那部小說受到關注、那些演員有要好的口碑，演員與電視劇題材間的關聯度等。

雖然中國 BAT 壟斷影視平台，但也仍然還沒有真正賺錢，但由於影視內容是吸引線上人氣重要的競爭策略，因此，各家母公司也還是持續投資在購買或是製作新的影片。訪談中的主要專業主管都意識到內容才是競爭的核心，雖然要花很多預算，但也都做好了要打持續戰的準備，也因此近幾年的影視節目經費動則一小時上千萬新台幣，甚至是千萬人民幣，一集甚至是台灣整檔的預算。

影視節目製作最重要的就是要有好的故事，不管是小說或是漫畫，甚至是動漫與遊戲，例如美國漫威英雄電影一部接著一部，而當紅的《琅琊榜》、《半月傳》皆為改編自網路小說的電視劇，這些由熱門原創小說改編而成的電視劇，就是所謂的 IP 劇。目前中國主要的小說、動漫與遊戲網站，也都由 BAT 介入經營，暢銷或吸引人的故事版權也在多年前被 BAT 所購買了，因此不只有影視戲劇可以拍，也有更多 IP 產品可以銷售，每年投入上百億人民幣的預算製作影視節目，不只是單純的目廣告與使用者付費，還可以從週邊商品，甚至是股市等各種綜效回本。

受訪的遊戲公司也跨入影視製作，原本只向日本購買改編自漫畫版權的遊戲版權，也增加影視製作等的 all right 版權，由於中國的遊戲產值成本快速，一款暢銷的遊戲可以有數十億人民幣的市值，通常也會有快上億的行銷費用，業者們目前將部分行銷費用移來製作戲劇節目，製作成本也可以有幾億新台幣，如果找台灣的團隊製作，其實整體預算是很充裕的，如果戲劇大賣，還能有更多的版權銷售與廣告收入等。由這個例子可以看到，不只是原本與 OTT 平台有關的影視業者投入戲劇製作，其他相關的內容業者，也都爭取進入市場，整合行銷費用，可以有跨各種週邊商品的獲利空間。

觀察中國影視平台與集團組織的運作，很多的經營邏輯早已經超越傳統的影視製作思維，而是建立在如何透過互連網，滿足消費者各種內容需求的戰略。因此，內部員工有大量比例是具備資訊科技背景，公司本部也是在北京中關村的科技園區，員工年輕、有拼勁，集團橫向業務的資源共享與相互競爭，例如騰訊的 QQ、WeChat、動漫、遊戲、體育與戲劇整合成果，早已經不是台灣還停留在傳統影視手工業製作所能比擬了。

行政院國家科學委員會補助國內專家學者出席國際學術

會議報告

105 年 7 月 31 日

報告人姓名	曾國峰 Kuo-Feng Tseng	服務機構及職稱	政大廣電系
會議時間 會議地點	June 9th – 13rd 2016 Fukuoka, Japan	本會核定補助文號	MOST 104-2410-H-004 -112
會議名稱	2016 International Communication Association, "Communication through Power"		
發表論文 題目	The Competition of Television Ratings: Can New Measurement Break the Monopoly?		

報告內容應包括下列各項：

一、參加會議經過

從台北至福岡參加為期五天的學術研討會，並發表一篇探討是否新的新收視調查方式可以打破尼爾森市場壟斷的論文。

二、與會心得

ICA 是全球最大的傳播學術學會，每年研討會議都有上千位國際學者、學生與業者參與，研討會的主題與面向也都相當多元，包含各種的傳播次領域研究。本論文發表的場次剛好也有其他論文主題是有關新的收視率調查方式，大家分享了不同國家目前電視與網路調查所面臨到的問題，以及新的大數據分析的可能應用。

三、建議

雖然前幾年凱擘與資策會就已經持續發佈「新媒體閱聽行為調查數據」，但由於凱擘目前雙向機上盒用戶的大數據統計是家戶而不是個人，只有 40% 的凱擘用戶，也不是有代表性的樣本，雖然是所有使用者的大數據，但卻無法滿足廣告主與代理商的需求。近年不斷有產業與學界希望政府可以介入收視率調查市場，打破目前尼爾森壟斷的問題，隨著 2016 年電視廣告已經比數位廣告的規模要小，其實很難再有一家只是提供相同服務的新進業者。但相對的行動、數位、網路、社群等新媒體調查的廣告量與需求卻不斷增加，影視內容的觀看行為也轉移至新媒體而不是傳統電視，業者們應該既早介入這些使用行為的分析，不只是可以轉為廣告交易的貨幣，更能透過對消費者使用行為的了解，提供更好的影視內容服務。

四、攜回資料名稱及內容

會議手冊、論文、panel 的紙本與電子檔資料。

2016 International Communication Association
Communication through Power

FUKUOKA, Japan

9th – 13rd June, 2016

**The Competition of Television Ratings:
Can New Measurement Break the Monopoly?**

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Abstract

The ratings data primarily are used by media outlets and advertisers to determine advertising rates, to assess the performance of media content, and to develop strategies related to the production of contents. Establishing an audience measurement service requires huge capital investments and the markets are usually natural monopolies. As the digitalization of cable systems in Taiwan, the MSOs can provide census data of subscribers as another currency for sale. However, after two years, Nielsen still hold the monopoly power in Taiwan's television ratings industry. This study interviewed ten professional managers and took the field observation of digital cable servers to unveil the factors of monopoly. The results show that the existing demographics-based, exposure-focused audience ratings will not be dislodged. Other census data of measurement on mobile engagement and social TV analytics will take hold, and will likely persist as an additional source of value in the audience marketplace.

I. Introduction

The advertising-supported media have functioned as three-way markets among media, consumers, and advertisers. The media have attracted audiences that they in turn have re-sold to advertisers. Media audience measurement companies have been the neutral arbiters of the process, providing the "currency" of exchange between media buyers and sellers.

Because of the high cost of collecting data and the reluctance of market participants to accept multiple "currencies" with differing values, there has tended to be only one single, dominant supplier of media audience data within each media sector (e.g., in the United States, Nielsen for TV, Arbitron for radio, MRI for magazines, etc) (McDonald, 2008). Economies of scale as well as the convenience of having to deal with one currency are the most important factors due to which television audience measurement markets are usually single provider monopolies (Napoli, 2003).

As new technology changes the way audiences consume media, the greater the number content options (i.e. channels) available, the more challenging it is to accurately and reliably determine the ratings for these channels when relying on traditional panel-based measurement systems. This is because panels need to become larger and larger to adequately account for the number of channels. Channel capacity has expanded faster than sample sizes can keep up. Many of the over 500 television networks available in the United States today have average ratings that are too small for Nielsen to even report (Napoli, 2011b).

In the past two decades, several audience measurement firms had failed to challenge Nielsen monopoly in the Taiwan television ratings market. This study will interview ten professional managers and take the field observation of digital cable servers to unveil the factors of monopoly. As the trends of media fragmentation and audience autonomy, can new digital entrants provide alternative currency to coexist with Nielsen in the audience marketplace?

II. Literature Review

1. Audience measurement industry is a natural monopoly

A key characteristic of audience measurement is the dominance of very few—and often only a single—provider, to ensure that all marketplace participants are operating under the same perceptions of current marketplace conditions and performance. As such, marketplace participants considering embracing a new measurement may be discouraged if they are confronted with multiple, competing—even conflicting—sources of this market information, each of which carries its own access costs (Kosterich and Napoli, 2015).

Between 1985 and 1999, Buzzard (2002) notes four instances in the United States when competitors, AGB, Percy, Arbitron and SMART, challenged Nielsen for measuring national TV ratings. The eventual outcome of all such contests has been the reinstatement of one provider as an audience measurement monopoly. Nielsen has remained that monopoly in the U.S. national television ratings market for over six decades. Outside the United States, most markets for audience measurement worldwide too have been single provider monopolies (Bourdon and Méadel, 2011; Taneja & Mamoria, 2012).

Nielsen was able to maintain its monopoly through a series of strategies that effectively warded off smaller competitors. The first important event was patenting the meter method. This action gave the Nielsen protection from competition, or monopoly power. Nielsen's patent gave the company the exclusive right to use the meter and prohibited imitators from using the same method. A second tactic used by Nielsen was its considerable economic muscle. Without competition to stimulate new product development, Nielsen's research and development energy shifted from innovation to perfection of their existing processes. (Buzzard, 2002).

It is the entrepreneurial and investment functions that raise the greatest barriers to entry in the ratings field. Although more innovative and responsive to the marketplace, new entrants stumble here because the industry, despite initial encouragement and early financial backing, is reluctant to accept necessary changes in the status quo or to put the capital necessary for these functions at risk. It is this hesitation that allows monopolists like Nielsen to sustain dominance by using time-tested economic and legal maneuvers to maintain their position (Buzzard, 2002).

2. New currencies coexist in the audience fragmentation and autonomy market

Contemporary audience evolution is being driven, in large part, by the technological changes that are transforming how audiences use media. The two key phenomena that are at the core of these changes—*media/audience fragmentation* and *audience autonomy* (Napoli, 2011a).

For example, most cable networks have audiences that are too small to even be

reported by established panel based audience measurement systems. Nielsen is able to provide audience ratings for only about 80 of the more than 500 cable networks in operation in the United States. The more than 400 remaining networks have audiences that are, on average, simply too small to be accurately captured by the roughly 25,000 households that are currently included in Nielsen's national U.S. television audience measurement sample (Napoli, 2012).

While one could argue that the measurement firms simply should increase their sample sizes, we must keep in mind that increasing sample sizes is costly. The addition of these new channels, with their very small audiences (and thus very small revenue streams), does not always add enough subscription revenues to the measurement firms' bottom line to sufficiently incentivize such sample size increases (Napoli, 2011b).

This situation is further complicated by the fact that content can now be consumed across multiple media platforms and audiences can be able to control their ways to consume content. Thus, for instance, a television program can be watched on television when it is aired by a broadcast or cable network, recorded on a DVR and watched later, watched online via a streaming media service, downloaded and watched on an iPod, or even watched via a cellular phone (Napoli, 2011b).

Thus, the increasing autonomy facilitated by the new media environment is working against traditional means of controlling media audiences and hence making their behaviors less predictable. Moreover, emerging technologies and services, such as interactive television and video-on-demand, promise even greater audience autonomy and additional challenges to the process of predicting audience behavior

(Napoli, 2001).

Taneja (2013) argued that audience measurement markets need not be single provider monopolies from the niche theory of media competition to identify mechanisms. He interviewed executives in the Indian television market on how they used information available from two competing rating services. Although market participants recognized only one system as the currency for trading advertising time, many used the second system selectively for improving network performance. Therefore, fragmented markets can support multiple systems if they serve distinct institutional interests. Napoli (2011a) posited that instead of one audience currency, media markets in the near future would afford “a basket of currencies” that would simultaneously circulate in the marketplace.

Historically as witnessed in audience measurement, when a new provider challenges an incumbent, there has been a high niche overlap between the two products. Further, ratings providers usually compete for limited resources (the ability of client organizations such as broadcasters and advertisers to pay for ratings data). Hence one measurement service, the provider with competitive superiority has prevailed, restoring the monopoly status. Yet, according to niche theory, a new audience measurement provider should be able to coexist with a dominant existing provider, if the former has a low niche overlap with the latter (Taneja, 2013).

3. Social TV and new audience measurement

The counterbalance to this decline in the reliability and comprehensiveness of traditional ratings data as a result of media and audience fragmentation is the institutionalization of alternative metrics for media consumption resulting from the

increased interactivity of the new media environment. That is, while the new media environment makes it increasingly difficult to determine exposure-based audience ratings, it makes it easier to capture and aggregate other aspects of media consumption, such as audience engagement, audience appreciation, or audience recall of the content they have consumed (Napoli, 2011b).

Because new media technologies are increasingly interactive, various forms of audience response can be captured and analyzed. Now, audience feedback and participation via interactive television set-top boxes, audience discussion in online forums and chat rooms, and behavioral responses in terms of ad-clicking or product-purchasing behaviors can be immediately gathered, aggregated, analyzed, and, ultimately, used as criteria for setting advertising rates and making strategic decisions about content production and placement (Napoli, 2011b).

Social media analytics are beginning to play a role in how television program success is measured, and in how advertising dollars are allocated across programs. Essentially, then, the emergence of social TV analytics represents the possibility of a new market information regime taking hold in the audience marketplace (Kosterich and Napoli, 2015).

Whereas Nielsen ratings measure audience exposure, these new services measure audience engagement. Consequently, social TV analytics data produce a very different portrait of which shows are succeeding and which are failing. Furthermore, social TV analytics serve as a means of providing insights for the large number of programs and networks with audiences that are too small to be measured and reported by the Nielsen system, which has had difficulty keeping up with the

increasingly fragmented television audience (Kosterich and Napoli, 2015).

In order to solve those problems, Nielsen, for example, announced plans to measure viewership from both mobile viewing and third-party streaming platforms like Amazon and Netflix. Social media analytics have emerged as the primary means by which audience measurement is moving beyond exposure to television programs and embracing metrics that capture other aspects of audience behavior. A key point of distinction, obviously, is that whereas traditional TV ratings required individuals to agree to be part of the measurement sample, social media metrics draw from the online population's expressions of their viewing habits, reactions, and opinions (Kosterich and Napoli, 2015).

With the 2012 acquisition of social TV metrics company SocialGuide, Nielsen began what would become a long line of purchases and forays into the realm of social TV analytics. Such acquisitions allow Nielsen to subsume would-be competitors into their own operation. These strategic moves help strengthen Nielsen's position as the legacy incumbent, thereby helping to institutionalize social TV analytics in its position as a supplementary market information regime. By evolving into a "one stop shop" for both currencies, Nielsen is able to discourage clients from making an either-or decision in relation to their primary market information regime and, in so doing, increases the likelihood of continued use of traditional ratings data (in which the firm has a substantial investment) (Kosterich and Napoli, 2015).

III. Taiwan Television Industry, Research Questions and Methodology

Currently, the subscription of cable television services is about 60% and five

millions subscribers of the five MSOs cable systems in Taiwan. Except for the cable services, the biggest telecommunication company, Chunghwa Telecom (CHT), also provides the linear multichannel and on demand video services (multimedia on demand: MOD) with over 1.3 million subscribers. The 40 percent of them also subscribe to the cable services, because most of the local channels are controlled by the MSOs and exclusively can be watched only in the cable systems.

The penetration of the digital multichannel cable television service is near 90% at the end of 2015 year. There are around 100 channels in the basic tier and the other 100 channels in the expanded digital tier. Therefore, most of the ratings are very small and many of them are usually below 0.1. The advertising market for the cable television is 781 million US dollars. The average monthly fee for the basic tier service is \$15.6 (\$1:32 NTD).

Nielsen entered the television audience measurement since 1992 year in Taiwan. There are 1800 audience samples for the television ratings. For the past two decades, there were several competitors with similar panel based ratings services but all failed eventually. For example, Broadcaster invested by one Japanese Video Research, was founded in 2001, but left the rating market in 2005 without the recognition of reliable audience measurement from the international advertising agents.

Two years ago, KBRO, the second largest MSOs, began to collect massive user behaviors in their digital cable television systems. Although there are over million cable subscribers in the franchises, only 40% of them have installed two-way set-top boxes to upstream log data back to the servers. However, after two years, no any

advertising and media agents bought any the rating data from KBRO. Furthermore, instead of analyzing the user census data and selling the rating information, CHT MOD actually requested Nielsen to set up the other rating service of 4000 audience sample through CHT's existing set-top boxes (Figure 1). Therefore, Nielsen is still the only one ratings provider and the currency decides the allocation of advertising revenues in Taiwan. So this study would like to ask:

RQ1: Why Nielsen ratings was still the only currency in the television ratings market in Taiwan?

RQ2: What can KBRO, the new digital new cable systems, provide the information from analyzing big data of user behaviors?

RQ3: What kind of the ratings information do the international advertising and media agents want for their clients, except for the traditional Nielsen ratings?

This study applied interview and field observation as the methodologies. The researcher interviewed 10 professional managers in the industries of ratings, cable systems, television channels, Nielsen, advertising and media agents in Taiwan. He also visited the headend servers of the cable systems to understand the way of census data calculation.

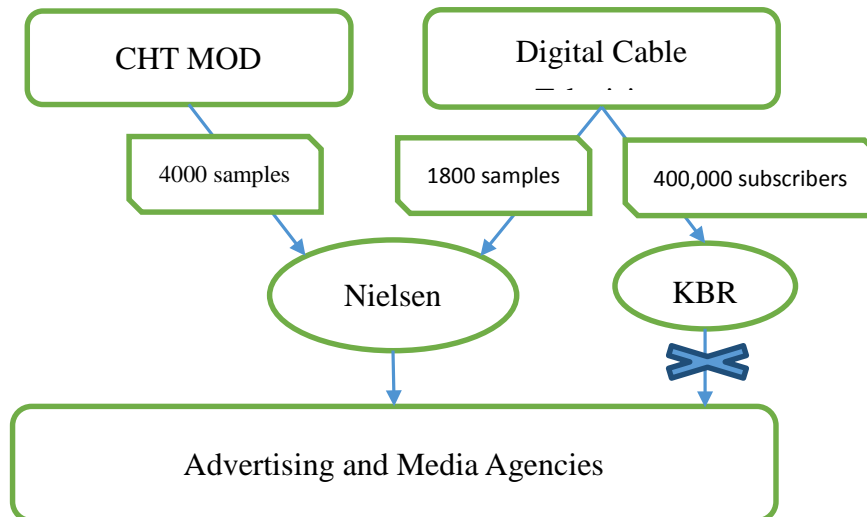


Figure 1. The relationship among contents, Nielsen and media agents in Taiwan

IV. Results and Discussion

1. Why Nielsen remains the monopoly in Taiwan?

Although there was an important news of an alternative television rating system announced by KBRO two years ago, the managers of KBRO said that they actually never wanted to compete with the Nielsen ratings from the beginning. Although there are near 400,000 log data of subscribers up streamed every minutes, those are household not individual without demographic information. Besides, only 40% of the overall KBRO subscribers with two-way set-top boxes can uploaded user behavior data. KBRO also only take 25% of all cable subscribers in Taiwan and most of them located in the Northern cities, so there may be bias in their cable subscribers even it is census data.

For example, there could be systematic difference between Nielsen and KBRO in news rating (illustrated in table 1), because the ratings of news channels could be watched more from certain political party preferences of citizens in Taiwan. Such as, the ratings of FTV was significantly less in KBRO, since there is less subscribers watch

FTV in the Northern cities.

Table 1. The News ratings comparison between Nielsen and KBRO

	Nielsen Ratings	KBRO	Difference
TVBS	2.63	2.24	-0.39
FTV	2.05	0.88	-1.17
EBC	1.99	2.12	+0.13
ERA	1.81	1.22	-0.59
SET	1.59	1.26	-0.33
CTI	1.53	1.40	-0.13

*Ratings are the average 15-minute ratings of 18:00 to 19:59PM on May 19, 2014.

Two measurers using different methods of sampling and different technologies will produce different figures. There have been some situations of coexistence of different figures, but never for long, in situations where commercial competition prevails (Balnaves and O'Regan, 2011). Because ratings function as the "currency" in the audience marketplace, there seldom has been sufficient commitment from media outlets or advertisers to financially support competing measurement services to provide alternative currencies. The need to analyze, and haggle over, multiple potentially conflicting ratings reports for the same piece of content would add greater uncertainty and analytical burdens to the audience marketplace. Based on these tendencies, one might even argue that the ratings business is a natural monopoly (Napoli, 2011).

Unlike most advertising sold based on the individual program in many countries, the advertising is calculated on CPRP (cost per rating point) in Taiwan. For example, the media agent buy the \$150 USD for CPRP guarantee from certain program. However, as the program rating actually decline to only 0.8 on the air, the

media agent can ask the television channel to compensate for another 0.4 ratings of \$75 USD of CPRP from other programs. Therefore, the ratings competition is more serious in Taiwan and should be consistent across different platforms, so it is usually a monopoly market.

As Bermejor (2007) mentioned that unlike with panels, it is much more difficult to gather the highly desirable demographic data from audience members when data are being gathered via television set-top boxes. But without an accompanying effort to gather demographic data, set-top boxes provide only very basic information about audience exposure – essentially, how many televisions tuned into a particular program (Napoli, 2011b). Therefore, it is hard for KBRO to use the household data to compete with Nielsen data of demography.

Why not KBRO invests the software for subscribers to login as they begin to watch programs and add the demographic information? The KBRO managers argued that the rating annual revenue is only \$70 million US dollars annually. Since the economics of scale and natural monopoly characteristics, KBRO did not consider that is a good investments of software and hardware of set-top boxes to collect user behaviors and only generates a similar currency of Nielsen.

In addition, most of the buyers of the television ratings are the international advertising and media agents. Currently, 90% of the media buying business is controlled by those international conglomerates in Taiwan. They consider Nielsen more reliable and the data can be compared with other countries worldwide. That is why CHT also authorized Nielsen to help set up the MOD rating investigating mechanism, instead of themselves, even though CHT had very strong IT research and

development. CHT needs the brand of Nielsen for those international media agents to recognize the fairness and objectivity.

2. The opportunities of new entrants in the audience fragmentation market

Even though KBRO invest to include the personal demographic data of cable subscribers, the ratings is not different from those index Nielsen already done. These must appeal to distinct institutional interests. In other words, to successfully coexist, a second measurement system should be able to provide additional information that clients perceive as new and different enough from information the first system provides, to justify the additional costs of subscription (Taneja, 2013).

It seems reasonable to predict at this point that the existing institutional structure—traditional demographics-based, exposure-focused audience ratings—will not be dislodged, but rather a secondary, supplementary market information regime based on social TV analytics will take hold, and will likely persist as an additional source of value in the audience marketplace. It is also possible that a new institutional structure can co-exist in some way with the old (Kosterich and Napoli, 2015).

Currently KBRO applied those census data of 400,000 subscribers to arrange the television programming schedule and marketing for their vertical integrated channels. CHT also had the information of 1.2 million subscribers and could calculate the way they spent in the on-demand services. In addition, there are over 200 channels and most of the ratings in both KBRO and CHT MOD is around 0.01. The audiences are fragment and the census data can be complement to help them

understand their audience behaviors.

Besides, as mentioned by the KBRO managers that the television ratings business is only \$70 million US dollars which is far smaller than \$781 million US dollar of the advertising revenue in Taiwan. Audience measurement systems should not be theorized solely as the currency for advertising trading, as their usage differs among different kinds of market participants (Taneja, 2013). Especially, the television ratings and advertising revenues are continuously declining, and on the other hand, the digital, mobile and interactive services of usages and advertising business raise in two digits every year.

In the United States, cable users only represent a fraction of the total universe of television viewers. Even if one had a complete census of the program viewing of all of the subscribers to every cable system, this would still exclude information about those who get their TV signal from other sources (e.g., satellite systems, internet. over-the-air broadcast) (McDonald, 2008).

Therefore, the tradeoff is clear: the data from a cable server can provide most granular detail on TV set usage, even if it lacks demographic details. Though cable households only represent a part of the universe of television viewers, the industry is poised to countenance a hybridization of data streams on TV viewing—with the sample-base probabilistic panels providing the overview of the market, but with the nonprobabilistic cable data providing a granular view of a key sector of the market (McDonald, 2008).

3. What advertising and media agency really needs?

The price that subscribers pay for the data, however, is anything but uniform. Pricing for commercial audience data is opaque. It is a function of factors such as the size of the organization seeking the data, the number of users of the data within the organization, or the number of computer terminals via which the data will be accessible (Napoli and Karaganis 2007). Thus, the amount paid by different subscribing organizations for the same data can vary widely.

Currently, most of the international advertising and media agents have to pay over \$100,000 to \$200,000 US dollars to buy various categories of television ratings from Nielsen in Taiwan. And, because there has historically been very little competition in the provision of ratings data, prices tend to be quite high (Napoli and Seaton 2007). Therefore, there is a Media Agency Association (MAA) in Taiwan to help negotiate a reasonable prices for those agents depending on their sale revenues and ratings categories.

In addition, the audience ratings with high prices alone could not provide sufficient information for the media agents to advise their clients as users watching television across different platforms. Although Nielsen began to integrate other methodology and sources to produce single index for sale in other countries, there is still no such services in Taiwan. Therefore, some of the media agents also calculate the ratings of Nielsen, online behavior of Comscore and buying data by themselves. If there are reliable data of either from pane-based or census across mobile, PC and television with single sources, the media agents are willing to pay for higher prices.

Because of the complexity of the situation, audience measurement companies

struggle to keep up and to develop new ways for measuring audiences and their use of applications and mobile media. Not being able to accurately measure these new technical and behavioral developments means that advertisers have less insight on the return on investment (Jennes and Jierson, 2012).

In current practice, participants in the web media markets effect their own hybrids, mixing data from sample-based and non-sample-based sources to fit the requirements of the situation. Such provisional solutions are likely to become more common with other media in the Long Tail future (McDonald, 2008).

For example, recently there is a program, *Mission of Queen*, which is an interactive game show that audiences can play with the program host and other online audiences through mobile APP. Since the audience winners can share the same amount money that the guest win after both of them answering ten questions correct. The ratings is OK, usually around 1% while there are about 50,000 users online. However the producer of the program argued that as the online users almost double, the Nielsen ratings only increased to 1.25%. The producer expected that Nielsen or other audience measurement can provide consistent data for them to sell their advertising.

V. Conclusion

The ratings industry is slow in keeping up with these changes since large, aggregated and linear TV audiences are still more valuable than the fragmented audience that accesses content through a different platform. The dependency on the standardized ratings is based on clarity of the business model for commercial linear

TV, a lack of standardized ratings for other platforms or services such as VOD and broadcasters are still learning how to incorporate new digital possibilities with linear television (Seles, 2010).

Therefore, there is still only very few, or maybe only one monopoly in the television ratings industry. However, as the trends of audience fragmentation and autonomy in various media, the lines of inquiry proposed in the previous section reflect the notion that the future of the audience marketplace is likely to be one in which there are “a basket of currencies.”

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科技部補助計畫衍生研發成果推廣資料表

日期:2016/12/28

科技部補助計畫	計畫名稱: 台灣影視產業困境與轉機: 科技創新與新商業模式
	計畫主持人: 曾國峰
	計畫編號: 104-2410-H-004-112- 學門領域: 電訊傳播/傳播科技
無研發成果推廣資料	

104年度專題研究計畫成果彙整表

計畫主持人：曾國峰		計畫編號：104-2410-H-004-112-				
計畫名稱：台灣影視產業困境與轉機：科技創新與新商業模式						
成果項目		量化	單位	質化 (說明：各成果項目請附佐證資料或細項說明，如期刊名稱、年份、卷期、起訖頁數、證號...等)		
國內	學術性論文	期刊論文	0	篇		
		研討會論文	0			
		專書	0	本		
		專書論文	0	章		
		技術報告	0	篇		
		其他	0	篇		
	智慧財產權及成果	專利權	發明專利	申請中	0	
				已獲得	0	
			新型/設計專利		0	
		商標權		0	件	
		營業秘密		0		
		積體電路電路布局權		0		
		著作權		0		
		品種權		0		
		其他		0		
	技術移轉	件數		0		件
		收入		0	千元	
	國外	學術性論文	期刊論文		0	
			研討會論文		2	篇
專書				0	本	
專書論文				0	章	
技術報告			0	篇		

		其他		0	篇	
智慧財產權 及成果	專利權	發明專利	申請中	0	件	
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	商標權			0		
	營業秘密			0		
	積體電路電路布局權			0		
	著作權			0		
	品種權			0		
	其他			0		
	技術移轉	件數				0
收入			0	千元		
參與計畫 人力	本國籍	大專生		0	人次	
		碩士生		2		
		博士生		0		
		博士後研究員		0		
		專任助理		0		
	非本國籍	大專生		0		
		碩士生		0		
		博士生		0		
		博士後研究員		0		
		專任助理		0		
其他成果 (無法以量化表達之成果如辦理學術活動、獲得獎項、重要國際合作、研究成果國際影響力及其他協助產業技術發展之具體效益事項等，請以文字敘述填列。)						

科技部補助專題研究計畫成果自評表

請就研究內容與原計畫相符程度、達成預期目標情況、研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性）、是否適合在學術期刊發表或申請專利、主要發現（簡要敘述成果是否具有政策應用參考價值及具影響公共利益之重大發現）或其他有關價值等，作一綜合評估。

1. 請就研究內容與原計畫相符程度、達成預期目標情況作一綜合評估

達成目標

未達成目標（請說明，以100字為限）

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論文： 已發表 未發表之文稿 撰寫中 無

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3. 請依學術成就、技術創新、社會影響等方面，評估研究成果之學術或應用價值（簡要敘述成果所代表之意義、價值、影響或進一步發展之可能性，以500字為限）

過去媒介經濟與產業分析，較偏重在市場結構分析與競爭策略，本研究從「科技創新」與「商業模式」的學術研究角度，提供台灣傳播學門思考企業組織創新文化，與OTT影視價值鏈的商業模式，檢視新媒體對影視產業衝擊。台灣影視產業的困境已經在關鍵的十字路口，原本的製作優勢不但已經被對岸取代，目前也正透過影視平台的規模經濟與邊際成本效益，進而吸引台灣節目上架、觀眾收視與廣告轉向，如此加速在地影視產業空洞化。本研究透過訪談近20位台灣大數據與OTT平台，以及中國OTT等新媒體13位專業經理人，後續將在半年內整理成2-3篇的研究論文發表，了解目前台灣影視產業面臨到的實際困難，希望透過中國近年在新媒體的快速發展經驗，也能重新發揮台灣資訊科技的軟實力，協助翻轉影視創新與加值的可能。

4. 主要發現

本研究具有政策應用參考價值： 否 是，建議提供機關NCC、文化部流行音樂與影視產業局

（勾選「是」者，請列舉建議可提供施政參考之業務主管機關）

本研究具影響公共利益之重大發現： 否 是

說明：（以150字為限）

電視收視率的獨占性仍然無法打破，只有少數業者開始嘗試相關大數據應用

，初期OTT的進入門檻不高，擁有寬頻與版權優勢的業者爭相投入，造成市場規模不大卻有數十家業者。中國影視集團透過互連網與資訊科技，滿足消費者各種內容需求的戰略，台灣必須吸引更多跨界產業投入，才能避免影視產業被對岸蠶食鯨吞的危機。