

## **An Explanation of the Mass Failure in the Market: the Internet – the Creator of Public Goods**

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### **Abstract**

Media and entertainment industries are in decline; profitability down due to 'freer access on computers. Is the internet producing 'Public goods' from what were Private goods? With respect to these goods and the Internet, the assumption used to classify 'Private goods' and Public goods in an economy (the degree of excludability and rivalry) was analysed, and the respective industries tested for being Public Goods. It was concluded these goods within the entertainment/media industries are slowly being repositioned from what are termed 'private' or 'club'/'congestion' goods, to their extreme opposite, Public goods. The 'free rider problem' of Public Goods has become the 'free copy problem' with respect to these goods. It was hypothesized the Internet was the cause. It was discussed Public Goods – by tradition – failure in the market, and are therefore provided by Government: is this to be the destiny of Internet goods, or any item on the internet subject to file sharing or digital copying in any form including – at the extreme – the human genome, solid object 3D printing, and even money in the form of bit-coins?

**Key words: Public Goods, Internet, Copyright, Market Failure, File Sharing**

## 1 Introduction

While there has been much (probably unfounded) concern over the effect new computer technology will have on labour markets, the real problem with computers may lie with the internet, and its effect on markets. Can the current demise of the entertainment and media industries be explained by the internet creating 'Public Goods'? Newspapers, TV, movie and music production and the like are – since the advent of the Internet – slowly diminishing and have been scrambling for new models that pay. All of these firms are 'hit' by the proliferation of their copyrighted material on the Internet. Notwithstanding attempts to extend their respective industries; to a great extent there is market failure. This paper claims this failure is due to the Internet producing an environment of 'Public Goods. For this to be so, there will have to be evidence of a 'free rider' problem, non-excludability and non-rivalry – in the respective industries – all due to the Internet. If true, it may seem trivial on the outside, however on the inside, a problem rises; traditionally, public goods tend to almost always be supported by Government. What does this mean for investigative journalism? Will it lead to support by Government under a merit good rationale.

### 1.1 Public Goods

While teaching market failure in my economics class recently, and analysing examples of 'public' and 'private' goods: I noticed newspapers and the like – at least in their digital form – are akin to radio, where radio can be consumed in either pay per listen or free to air. Newspapers have similar problems to that of Public goods. So, what is a public good? The following is taken from a regular economics textbook.

*"Public goods are goods that are both non excludable and non-rival. Consumers cannot be prevented from consuming them once they are provided and additional consumers do not reduce the amount left for other people, e.g. national defence. Once a country is defended all of its inhabitants benefit automatically. Many public goods such as lighthouses could in theory be provided by the market mechanism but are not; these are called 'quasi public goods', rather than 'pure public*

*goods'. Public goods suffer from the free rider problem. If asked whether they would pay for them, households would lie and say no because, once provided, they could benefit for free anyway. Because no one is willing to pay for these goods (because they hope someone else will) they will not be provided in a free market. Therefore, the Government must provide them. (Note: for a 'private good' if one unit is consumed by one person it cannot be consumed by another. (This is not the case for public goods.)" [1]*

## **1.2 Public Goods and the Internet**

For the Internet to create an environment for public goods it will have to show evidence of non-excludability and non-rivalry. Non-excludability may be evident in the way the said goods and services are now sold: consumers can view – most, if not all – the product (news articles) online without paying. This is unlike the classic examples of a lighthouse or streetlight, but the effect similar; the firm has lost control of access: if the consumer cannot get from one provider of news, they will (easily) find a substitute, and if an access fee is applied online, this will also lead consumers to likely search for a free substitute. Firms are forced into competitive 'game play' to offer material for free. For the music and movie industry, much is available on Youtube; and if not Youtube, a close substitute to it – copies can easily be made by consumers. Entertainment goods are proliferated throughout the Internet, and this is extremely difficult to police; if a copy is found by a firm to be 'pirated', this copy may be 'taken down' – only to see copies soon available somewhere else, sometime in the future.

Non-rivalry maybe broken down to whether the consumers experience of the good or service is diminished by the use of an other consumer; are the consumers 'bothered' by the practice of someone – or themselves – getting something for (next to) no cost? The answer, without any research, is – no. Unlike the use of other traditional 'Private' or 'Common goods' (figure 1 below) – print newspapers, recorded music – there is no rivalry or bother by others the 'stealing' or copying of the good. The community do not show the concern or fight for the media as they would for the exploitation of 'Common goods' – the whales in the oceans or pollution in the atmosphere.

As a consequence of this non-excludability and non-rivalry, the entertainment, media industries or anything subject to file sharing or digital copying in any form, have slowly been re-positioned from being private or club/congestion goods, to an opposite domain, public goods – as shown in the table below.

	Excludable	Non Excludable
Rival	<b>Private Goods</b>  <i>before the internet:</i> <i>music,</i> <i>newspapers,</i> <i>movies..</i>	<b>'the Commons'</b>  <i>forests,</i> <i>oceans and</i> <i>atmosphere</i>
Non Rival	<b>Club/Congestion Goods</b>	<b>Public Goods</b>  <i>all the usual plus</i> <i>(with the internet)</i> <i>all Goods that can be file shared:</i> <i>music,</i> <i>newspapers,</i> <i>movies..</i>

**Figure 1. Public Goods and the Internet.** All forms of media, once the domain of 'Private goods' are now in the domain of 'Public Goods'.

### 1.2.1 The Free Rider (free copy) Problem and the Internet

The 'smoking gun' evidence of this 'internet creating public goods' claim is the presence of the free rider problem. Consumers are not getting a free ride, but rather a – in this case – a free copy: quite literally – when asked to pay by a market provider – consumers simply find a substitute or find a free copy elsewhere (on the internet). And for music and films, copies are made 'free' by file sharing and the like.

## 2 Discussions and Conclusions

Firms in the arts and entertainment industry demand revenue if they are to survive. While there has been an adaptive response to this problem of market

decline: Spotify and the like for music provision, Netflix and the like for movie, and bands concert touring more, it does not seem to totally satisfy the concern of those in the industries – where there is clearly a major decline.

The problem is: public goods tend to fail as a business operation, and are almost always supported by Government, this is of great concern with respect to the future of news media and investigative journalism. Democracy demands or depends upon a 'free from Government' media – can blogging and other social media meet this problem. It is likely we will see a 'mass extinction in print and arts; this is not to say (at all) this is the end of the market, but it is a massive change.

The problem of mass-market failure may be extended if we include other flows of knowledge and information with respect to modern tech: the genome, knowledge in general, and anything that can be digitally printed, including solid object 3D printing, and even money in the form of bit-coins.

There is a great paradox: one of the great accomplishments of humanity, the internet, maybe our own, slow undoing. It is as if the Internet has formed some kind of an economic black hole. Is there any escaping? Our own privacy on the Internet may well fall under this public goods paradox also: including – in the future – ones genome.

## **References**

1. Gillespie A. Advanced Economics Through Diagrams. Oxford University Press; 2001.