

# The Internet, the Creator of Public Goods — ePublic Goods?

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## Abstract

Media and entertainment industries are in decline; profitability is down due to more access to computers and file sharing. Is the Internet producing 'Public goods' (ePublic Goods) from what were 'Private goods'? With respect to tradable goods via the Internet, the assumption used to classify 'Private goods' and 'Public goods' in an economy (the degree of excludability and rivalry) was analysed and tested. It was concluded that these goods within the entertainment/media industries are slowly being repositioned from 'private' goods to their extreme opposite, public goods—termed in this paper, ePublic Goods. The 'free rider problem' of ePublic Goods has become the 'free copy problem'. It was hypothesised that the Internet was the cause. It was discussed that Public Goods—by tradition—fail in the market and are therefore provided by the 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 bitcoins?

**Keywords: Public Goods, Internet, Copyright, Market Failure, File Sharing**

## 1 Introduction

Traditionally, public goods are understood to fail when provided by the market. They are non-excludable and non-rival, and they share the free rider problem.

Recently, there has been much concern over the current demise of the entertainment and media industries. There has been a total overturn of the standard business model, with many going to the wall. Newspapers, TV, movie and music production and the like have slowly diminished since the advent of the Internet 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. Even with attempts to extend their respective industries, there is, to a great extent, market failure.

Can the Internet explain this mass failure by creating a new landscape of 'Public Goods, or electronic Public Goods (ePublic Goods)? This paper claims yes, that this failure is due to the Internet producing an environment of 'Public Goods. For this to be so, there must 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 arises: traditionally, public goods are almost always supported by the Government. What does this mean for investigative journalism? Will it lead to support from the Government under a merit-good rationale?

## 1.1 Public Goods

*“Public goods are goods that are both non-excludable and non-rival. Consumers cannot be prevented from consuming them once 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 will benefit automatically. In theory, many public goods, such as lighthouses, could be provided by the market mechanism but are not; these are called 'quasi-public goods' rather than 'pure public goods'. Public goods have a 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. Because no one is willing to pay for these goods (because they hope someone else will), they are provided in a free market. Therefore, the Government must provide them. (Note: For a 'private good', if one person consumes one unit, it cannot be consumed by another. (This is not the case for public goods.)” [1]*

Traditional examples of private goods, such as newspapers, and their digital counterparts—at least in their digital form—are akin to radio, which can be consumed in either pay-per-listen or free-to-air form. Newspapers have problems similar to those of public goods. So, what is a public good? The following is taken from a regular economics textbook.

## 1.2 ePublic Goods and the Internet

The Internet must demonstrate non-excludability and non-rivalry to foster public goods. Non-excludability may be evident in how 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 is 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 search for a free substitute. Firms are forced into competitive 'gameplay' to offer material for free. In the music and movie industry, much is available on YouTube, and if not YouTube, a close substitute—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 may be broken down to whether using another consumer diminishes the consumer's experience of the good or service; 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 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 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 repositioned from being private or club/congestion goods to the 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. ePublic 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—this case—a free copy. When asked to pay by a market provider, consumers find a substitute or a free copy elsewhere (on the Internet). Moreover, copies of music and films are made 'free' through file sharing and similar methods.

## 2 Discussions and Conclusions

Firms in the arts and entertainment industry demand revenue 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 movies, and bands' concert touring mor—it does not seem to satisfy the concerns of those in the industries where there is a significant decline.

The problem is that traditional public goods tend to fail as business operations and are almost always supported by the Government; this is of great concern for 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? We will likely see a 'mass extinction in print and arts; this is not to say (at all) that this is the end of the market, but it is a massive change.

The problem of mass-market failure may be compounded if we include other flows of knowledge and information regarding modern tech: the genome, general knowledge,

anything that can be digitally printed, including solid-object 3D printing, and even money in the form of bitcoins.

There is a great paradox: One of humanity's great accomplishments, the Internet, may be our slow undoing. It is as if the Internet has formed a kind of economic black hole, with little to no profit for the industries in question. Is there any escaping it? Our privacy on the Internet may well fall under this ePublic goods paradox too, and even to knowledge itself, as the traditional keepers of knowledge lose control, the keys to the gates.

## **References**

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