

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

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### **Abstract**

Based on the economic model used to classify 'goods' in an economy; private goods such as found in the entertainment/media industries, 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, are being slowly repositioned from what are termed 'private' or 'club'/'congestion' goods, to the extreme opposite, public goods. The 'free rider problem' of Public Goods has become the 'free copy problem'. Public Goods failure in the market, and are therefore provided by Government: is this the destiny of internet goods.

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

## **1 Introduction**

One of the great questions of our time is what is to be the fate of the entertainment and media industries - newspapers, movies, music production, TV and the like - all of which since the advent of the internet, have been scrambling for new models that pay? Will they survive in this age of Internet and file sharing? I have found something that suggests why it is so difficult for them. It came to me while teaching the market failure economics and analysing examples of 'public' and 'private' goods: I was looking at the (market) differences between 'Cable TV' - which is known as a 'club good' or 'natural monopoly', - and 'free to air TV' - which is known as a 'public good: I began to see other examples or repetition's of the subject at different scales and contexts, and after doing so, noticed something interesting, if not astounding, newspapers and the like are now - at least in their digital form - public goods.

### **1.1 Public Goods**

The following is a typical textbook definition of a Public Good.

*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**

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 their now extreme opposite, public goods – as shown below in figure.

	Excludable	Non Excludable
Rival	<p><b>Private Goods</b></p> <p><i>before the internet:</i>  <i>music,</i>  <i>newspapers,</i>  <i>movies..</i></p>	<p><b>'the Commons'</b></p> <p><i>forests,</i>  <i>oceans and</i>  <i>atmosphere</i></p>
Non Rival	<p><b>Club/Congestion Goods</b></p>	<p><b>Public Goods</b></p> <p><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></p>

Figure 1. Public Goods and the Internet.

**1.3 The free rider (free copy) problem**

The proof of this 'public good' claim is the presence of the free rider. Quite literally – when asked to pay by a market provider – consumers simply find a substitute or find a free copy elsewhere (on the internet). We quite literally get a free ride – or in this case, a free copy. And for music and films, copies are made 'free' by file sharing and the like.

**1.4 Lack of Rivalry**

Unlike the use of other traditional Private or Common goods – for example print newspapers – there is no rivalry: there is little bothered by the 'stealing' or copying of the good, and they do not show real concern – or fight – for the media

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– as they would for the exploitation of Common's goods, e.g. the of ocean's or atmosphere.

## **2 Discussions**

The problem is public goods tend to fail as a business operation, and are almost always supported by Government. Traditional examples are lighthouses, and streetlights. So this leaves a great paradox: we have the Internet, and do well for it, but on the other hand maybe our own, slow undoing. Democracy demands or depends on a 'free from Government' media; and firms in the arts and entertainment industry demand revenue if they are to survive.

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.