

NeoMedia's Patent on Using Identification Code to Access Networked Computers.

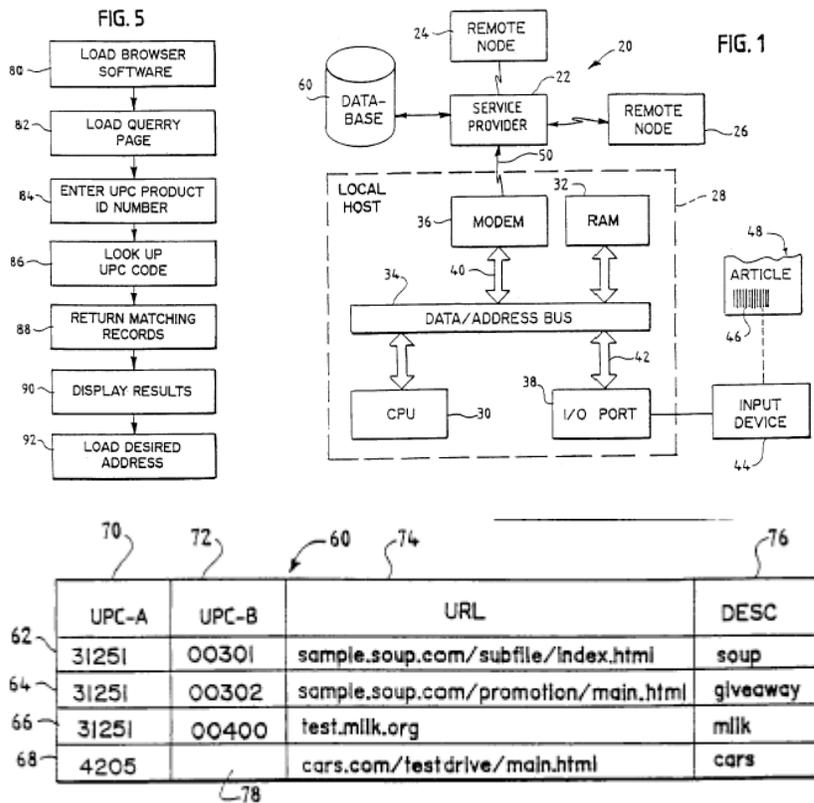
U.S. Patent No. 6,199,048

Latest Date That Material Can Qualify for Prior Art: **June 20, 1995**

I. General Description of the Invention

The NeoMedia patent claims the general concept of reading an “index” (e.g., UPC number¹) off of what it calls a “data carrier” (e.g., consumer product) and cross-referencing that index in a database in order to find the necessary information to look up and connect to a remote computer (e.g., URL fetched out of a database which is then inserted into a web browser).

The patent contains nearly 100 distinct claims; however, most of these claims are slightly altered variants on the patent's 3 basic claims – 1, 36, and 71. These three claims, in turn, are simply different forms of the same basic idea as described below.



¹ UPC stands for Universal Product Code. It is the original bar code scheme and is commonly found on a wide variety of products. Stores routinely use cash registers which scan UPC numbers in order to tally totals for customer receipts.

The idea behind the inventions claimed in this patent can be broken down into three steps:

- 1) some index must be read off of a data carrier;
- 2) that index is used to look up information; and
- 3) that information is used to form a connection with a remote computer.

For example, suppose a consumer walks into a supermarket and comes across a brand of soup he has heard about but never seen before. The consumer wants to get more information on this product, and he turns to his web-enabled cell phone to see if the company who produces the soup has a web site with more information about the product. Instead of running a search on any widely-known search engine, the consumer types the UPC number found on the can of soup into his phone. The phone then looks up a web site associated with the UPC number, and that website is loaded into his phone's web browser. This phone would likely be found to infringe many of the claims contained in this patent.

In this example, the key aspect of the infringing activity is not the fact a UPC number is used, that a URL is retrieved, or that the phone's web browser is used to access a web page; rather, the fact that the phone paired the UPC number with a URL is the central idea behind this patent. Of course, pairing a UPC number with another piece of information is nothing new at all – prices of items have been routinely paired with UPC numbers at cash registers all across the country. This patent claims to have invented the idea of pairing identifying numbers, such as UPC numbers, with information used to connect to remote computers, such as URLs.

II. Claims at issue

Claim 1 is the broadest claim in the patent since it covers the three steps described above. For the purposes of this claim, it does not matter what is actually carrying out the steps so long as they are performed.

Claim 36 defines the steps outlined above incorporated into a system, as opposed to the method itself in the abstract.²

Claim 71 defines a device, as opposed to a system or method, which carries out the basic invention in the patent.³

² A method can be thought of as a kind of recipe used to accomplish a given task. A system is akin to the machinery used to accomplish a method.

³ In this context, a device refers to a single machine which embodies the characteristics laid out in the claim, as opposed to a method for accomplishing the task or a system designed to carry out a task comprised of several devices.

All of these claims have numerous dependent claims which give more specific examples of various implementations of NeoMedia's invention. For example, there are claims in the patent which cover using input devices such as bar codes scanners or RFID readers, instead of a phone's keypad, in order to read an index into the system. There are other claims which cover identifying numbers other than UPC numbers. There are also claims covering different formats for the data which is used to connect to a remote computer, such as using IP addresses to establish connections rather than URLs.

III. Description of Prior Art Needed to Bust This Patent

The NeoMedia patent is based on an early application called a "provisional" application that was filed on June 20, 1995. Thus, EFF needs to locate prior art that was publicly available before that date. Prior art can be in the form of a published patent, a printed publication (e.g., web page, newsgroup post, public presentation, magazine article, technical paper), a product manual, or literature related to a product or its sale. Publicly available software that was distributed before the critical date and demonstrated the functionalities described in the patent may also be used as prior art.

In order to bust the NeoMedia patent completely, we must find one or more prior art references that discloses each of limitations of the various claims. But eliminating even one or two of the claims will narrow the patent and substantially reduce its effectiveness.

The absolute best prior art will describe all of the required elements of each claim put together in the way described by the patent. Ideally, the prior art would focus on the same sort of examples contained in the patent, e.g., scanning UPC or other product numbers, retrieving a URL, and accessing a web page. This is because the claims are much more likely to apply to such previously described inventions, no matter how narrowly the Patent Office may interpret the meaning of the claims.

Even if a piece of prior art does not describe all of the elements in a claim, that prior art can still be used to bust a patent if it describes some of the elements and can be combined with other pieces of prior art that describe the other elements. For example, prior art which describes obtaining an index, such as a UPC number, off of a data carrier, such as a consumer product, and using that index to fetch information out of a database might be combined with another piece of prior art which describes using data fetched out of a database to establish a connection with a remote computer.

We are especially interested in prior art relating to the scanning of codes off of tangible items and the subsequent use of those codes to establish a connection to a remote computer. For example, in addition to the UPC consumer product example, a killer piece of prior art would be a description of a process which reads in tracking numbers from packages, uses that number to locate a remote computer, and then displays information fetched from that remote computer – such delivery or inventory information. The context could be in a warehouse, package delivery business, or retail store setting. However, the

claims are certainly not limited to those arenas or those types of uses. As long as the prior art contains steps which can be mapped to each element of a given claim, it is useful in busting this patent.

Below is a description of the prior art we are seeking for each key claim:

A. Claim 1

Prior art to bust Claim 1 must contain:

[a] some means to read an index off of a data carrier;

Ideally, this prior art would involve reading codes off of items which are not directly connected to the computer – such as a UPC number off of a can of soup or a tracking number on a package. However, the claim language is very broad. The terms “index” and “data carrier” are not specifically defined in the patent, so any prior art which would arguably fit this description would be helpful;

AND

[b] some means of accessing a database which contains records linking various indexes with pointers to remote computers on a network;

Ideally, this prior art would describe accessing a simple table where the index numbers read in from step [a] are paired with pointers to remote computers. The pointer could be in any form – IP address, URL, or literally a pointer as in computer science terms. The key element is that this pointer has to be used in a particular way as described in step [d] below. The database could be located anywhere as long as it is accessible;

AND

[c] some means to return the pointer linked with the index in the database back to the requesting party.

Basically, there needs to be some sort of way to get the pointer out of the database and to the user;

AND

[d] some means for the requesting party to use the information extracted from the database to connect to a remote computer.

The key element here is that the information fetched from the database needs to be used to establish communication with a remote computer. Inserting a URL into a web browser and calling up the web page is perhaps the easiest example to understand. A database

which only contains index values paired with price values is not going to be sufficient to bust this patent unless the price value returned is somehow used to establish a connection to a remote computer.

B. Claim 36

Prior art to bust Claim 36 must contain:

[a] some sort of user computing device;

Any sort of hardware which is capable of running computer applications and has a user interface so that a human can interact with the hardware in a useful manner will satisfy this element – anything from a cell phone to a personal computer would satisfy this element;

AND

[b] an input device associated with the computing device that is configured to read indexes off of data carriers;

Ideally, this device would be something along the lines of a UPC scanner. However, the claim is not limited to such items. Any sort of device which allows for the input of indexes off of data carriers will suffice;

AND

[c] a database which links indexes to pointers has to exist somewhere;

AND

[d] some means for the user computing device in element [a] to access the database in element [c], fetch a pointer as a function of a given index, and then use that pointer to connect to a remote computer.

The key is that the pointer fetched out of the database has to then be used by the user computing device to connect to a remote computer. Merely displaying the information retrieved out of the database is not sufficient unless that information is then used to connect to a remote computer.

C. Claim 71

Prior art to bust Claim 71 must contain a single device containing these components:

[a] some input device configured to read indexes off of data carriers.

Once again, ideally this would be something along the lines of a scanning mechanism, but the claim is certainly not limited to such devices;

AND

[b] some computing processing means to execute a piece of software which can access a database containing records linking indexes to pointers, use the index inputted to the device through the component of part [a] to extract pointers out of the database, and use the pointer to access a remote computer.

The database does not have to reside in any particular location, nor are there any requirements as to the form of the index or the pointer. The key element, like the other claims, is that information has to be extracted from the database, using the index inputted into the system, which is then used to connect to a remote computer.

IV. Where to Send Prior Art

If you are aware of prior art which you believe could be used to invalidate this patent, please send that information to: priorart@eff.org or go to the web form located at <http://www.eff.org/patent/wanted/contribute.php?p=neomedia>.