

# Is Reverse Engineering Ethical?- Part II

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## Part-II

Will companies that offer reverse engineering solutions stand by their clients in an all-weather relationship when a lawsuit is framed for illegal – copying? What then is the merit of reverse engineering?

Drug companies make generic versions of internationally patented drugs by alternate process. This has become an issue in international forums and the image of Indian research has definitely taken a beating.

Cheap Chinese copies of famous brands in the realm of mobile phones, cars etc., have definitely damaged the reputation of the Chinese.

Well in the days of yore in engineering for automobiles, one used to say that when GM makes a new car the next day Ford or Chevrolet would come up with a similar one. Well is this Reverse Engineering? Why have their names suffered? Are they practicing safe reverse engineering which others don't?

Drugs Automobiles, machinery, electronic goods, - name it they all fall under Engineering and research.

All these fields employ reverse engineering.

Let us examine a case study:

An old car is cherished and kept by an enthusiast and one day he finds that one critical part of the car has given way and he needs to replace it. Where would he get the part? Is it wise for him to scout for the original supplier and locate him if he exists and then buy the part? What if the original manufacturer has stopped making that part? Is it ethical for the user to copy the part and make one new by his own method? Is it fine for him the use Reverse Engineering?

It is definitely sounding good and here in the above case one will definitely agree that This Reverse Engineering is ethical.

Now consider the next scenario:

There are many such 'old cars' and in almost all of them the same part needs replacement due to age.

Can a person set-up a commercial organization, do a reverse engineering of the part manufacture and sell them? Whose permission does he need to obtain in such case? – the OEM has anyway stopped making the part long back. – looks somewhat tricky.

What could be the other scenarios?

- There is inadequate documentation of the original design
- The original design documentation has been lost or never existed
- Few weak features of a product need to be changed or the good features of the product need to be strengthened.
- To analyze the good and bad features of competitors' product- competitor bench marking
- To improve product performance and features

**Let us now focus on another critical issue- Intellectual property:**

Every country has its own law on copyrights and also on patents.

Mostly inventions and crucial research details are either protected by patents ( only for 20 years) or copyrights or even by trade secrets (coca cola formula for example).

While one can't do anything about trade secrets let's leave that alone and try to focus on the remaining two. I am only giving this major topic a cursory treatment. This is an issue that has many case studies and live issues like Samsung Vs Apple, TVS Vs Bajaj to name a few. There are arguments on both sides and many of them are not directly related to reverse engineering but copying of features that the other has a legally valid patent protection.

1 Copyrights:

These exist and usually prevent one to one shape copy. One can easily work around this by changing the shape.

2 Patents:

Typically one should look for patents on function innovation and design patents.

These have a life of 20 years and within that period one cannot do a commercial copy and sell in the same domain country as declared in the patent.

What about after 20 years and or outside of the domain? These are legally escapable situations but by the time period of 20 years the product could well be obsolete. If one were to reverse engineer a picture tube television that was patented more than 20 years back, what use would one find for such an effort to reverse engineer? Is there a situation to do reverse engineering of a part that is protected by patent law? – Typically it is not as it is neither ethical nor legal. One can do so in labs for research but cannot make commercial use for such a reverse engineered product.

reverse Engineering

