Reuse of products in a circular economy
a patent law perspective
infringement vs further development

Fredrik Öhrström
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Patents in relation to repairing

METHOD CLAIMS

If the sold product makes use of the claimed methods when it is put on the market, then the claims are exhausted.

Alas any claimed methods used to prepare the product, tune it, synchronize it are probably not exhausted. These methods might be necessary to repair or reuse the product.

Also methods are implemented using software, which often is not in the product when it is put on the market. The software is downloaded and licensed at a later time.

APPARATUS CLAIMS

Exhausted when product is sold.

Alas spare parts are not exhausted if they are not put on the market with the IP-holders consent.

Sustainability forced by law

METHOD CLAIMS

The right to perform any claimed methods which are needed to repair, prepare, tune or synchronize must be given and forced by law. Like future EcoDesign directive and regulations.

The downloaded software with separate licenses introduce a second level of complexity since this software is not sold, but licensed.

APPARATUS CLAIMS

The availability of spare parts for purchase, and for a reasonable price, must be forced by law. Like the EcoDesign directive and regulations.

Downloaded software

When the whole product depends on the downloaded software then whoever controls the software controls the product. Including the right to repair and the possibility of future development on the sold product.

* Do you really own that phone you are holding?

* What does it mean to own a product that is remotely controlled?

* Should competition and marketing law really allow such products

   to be *sold* ? Are they not in fact *rented* ?

When technical means replace the need for intellectual property.

Only someone with the proper signing key can:
 * install software on your phone.
 * install purchased books in your Kindle, and remove books without warning.
 * create replacement ink-cartridges for a printer or juice packages for Juicero.

But signing keys are not always necessary a similar effect can be achieved with:
  * nececessary diagnostic tools for repairing John Deere tractors.
  * continuous internet connection to use the device, like xbox and playstation.
  * continous software updates.

Continuous software updates

Might seem like a good idea, however this is also used to reduce the life span of products.

 * When building software for older Apple products, you must take care to prevent Xcode from auto-updating.

 * Bank applications and older phones.

When the product breaks because software is no longer produced for the particular product, should we have the right to repair software?

However this can be difficult from a technical perspective since the source code is not available. Should we therefore have the right to install replacement software, to repair and/or re-use the product?

Software and further development

The control over software distribution onto our devices generate huge revenue streams and the manufacturers are unlikely to voluntarily give up control of they devices that you have bought.

A right to repair such devices to reach a sustainable lifetime (which is probably much longer than the manufacturers' desired lifetime) must therefore include a right to replace the software that is no longer functional.

There will be a clear conflict between the manufacturers desire to prevent further development for older products and society's interest in sustainable products.

Conclusion

* Patent exhaustion by itself, is not enough to achieve a right to repair.

* Too many software updates are used to deprecate products.

* Cryptographic keys are used to maintain control over a sold product.

Future EcoDesign regulations and directives must make sure the right to repair also includes the right to control the sold the product, for example by replacing the cryptographic keys with keys that the customer controls as well as the right to perform any claimed methods necessary for product configuration when repairing or re-using the product.

Thank you for the attention

Fredrik Öhrström

fredrik.ohrstrom@viklauverk.com