Case Study: Microsoft’s Photo DNA

Founded in 1975, Microsoft, with a current net revenue of $93.58B, is the leading platform and productivity company for the mobile-first and cloud-first. Its mission seeks to empower all persons and organisations on the planet to achieve more. Microsoft has geographically dispersed operation centres in licensing, manufacturing, operations and logistics, with 121 subsidiaries.

Company Action and Outcomes

Every time an image of child sexual abuse is shared and viewed by another person, that child in the photo is re-victimized – even many years after the original abuse occurs. While law enforcement does great work to help stop child exploitation, the crime is increasing beyond any single sector’s ability to address it. Microsoft believes that in order to address this problem, everyone needs to take action.

In 2009, Microsoft partnered with Dartmouth College and the National Center for Missing & Exploited Children (NCMEC) to create PhotoDNA, a signature based image matching technology designed to help find, report and eliminate some of the worst known images of child sexual abuse on the Internet. Through its CyberTipline and as the legally-authorized clearinghouse for child sexual abuse materials reported by U.S.-based electronic service providers, NCMEC has unique insight on the problem.

PhotoDNA enables the creation of a unique digital signature of an image which can then be used to compare against signatures of other photos to find copies of the same image. Microsoft donated PhotoDNA to NCMEC with permission to sublicense to any online services who participate in the NCMEC PhotoDNA initiative. NCMEC creates PhotoDNA signatures of known images of child sexual abuse online and shares those signatures (never the images themselves) with online service providers like Microsoft and Facebook to help disrupt the redistribution of those images online. PhotoDNA is available at no charge for online service providers’ use to combat child sexual exploitation and has already helped stop the online redistribution of millions of horrific images of child rape.

In March 2012, Microsoft made PhotoDNA available to law enforcement worldwide at no charge to support child sex abuse investigations and help law enforcement more quickly identify and rescue victims and bring their abusers to justice. Law enforcement can now get PhotoDNA source code through direct licensing or in selected tools they already use, including NetClean Analyze.

With billions of images, videos and text put online daily, user-generated content, or “UGC,” is the lifeblood of the online world. Illegal or inappropriate content can surface almost anywhere, so every organization allowing for UGC needs a comprehensive content-moderation plan. To make it easier and less costly for PhotoDNA to be part of such programs, Microsoft enhanced and extended its PhotoDNA technology by launching PhotoDNA Cloud Service in 2015. PhotoDNA Cloud Service leverages the speed, security and efficiency of the Microsoft cloud to help detect, report and disrupt the distribution of child sexual abuse material in an online environment. The service is free and available to qualified customers from Azure Marketplace for the sole purpose of preventing the spread of these illegal images. Microsoft PhotoDNA Cloud Service for enterprises: [www.microsoft.com/photodna](http://www.microsoft.com/photodna)