Crime of material found in the digital devices.

Crimehas always been an issue and with advancing technology, it is becoming morecomplex. As technology progresses and crimes become more intricate, so must thetools and resources used to solve criminal investigations. Cybercrime is the involvementof devices where criminal activities are carried out on, like computers or mobilephones.

Digital Forensics is the recovery and investigation of material foundin the digital devices. Child pornography and Sextortion are terrible and fast-growingcybercrimes. Digital Forensics is one of the most important fields of forensicscience that can solve these crimes.

CrimeThereare multiple cybercrimes that digital forensics can solve, but childpornography is one of the most widespread ones. Most people already understandthat child pornography is illegal and how horrible it is, but it is still beingproduced. Child pornography is a crime that was birthed with the expansion ofthe Internet. The Internet allows images of child pornography to be availablealmost anywhere and everywhere.

Internet forums, social networking sites, file-sharing sites, and other media that allows communication are ways itspreads. The Internet allows these offenders to connect with each other. Thisis how child pornography has become one of the most widespread crimes. ConsequencesTheconsequences of being convicted for child pornography vary and can be verysevere. The Federal law prohibits the production, distribution, reception, andpossession of any images that depict child pornography. It is a serious crimeand there are severe penalties. Depending on the offense and whether this isthe

offenders first offense or not. First offenders can face a fine and jailtime from a minimum of 5 years to 30 years.

If the offender has been previouslyconvicted for the same crime kind of crime, then they can face up to life inprison. Life in prison is a severe consequence that these offenders are willingto take. EffectsTheconsequences are not what make child pornography a horrible crime, it is thelasting effect that it has on its victims. Each victim is a victim of sexualabuse. Due to the nature of the crime, it is only found out after the childpornography has been distributed. This means that the victim could be in thesituation for months or years.

Often the offender might give a false sense ofsecurity that makes the child think what is happening is okay. These things canimpact the victim, psychologically, for the rest of their life. While still achild, the victim can begin wetting the bed, eating problems, and problems atschool. As an adult, the victim can experience anxiety, alcoholism, and drugabuse. Being sexually abused as a child can ruin their adult relationshipsforever, feel betrayed, angry, and even turn them into offenders of the verything that ruined their life. Child pornography emotionally ruins its victims, making it one of the worst crimes ever committed.

SextortionAnotherawful crime related to child pornography is sextortion. Sextortion is a type ofexploitation that blackmails a victim into sexual favors by threatening tospread sexual images or videos. Usually the offender will coerce girls intosharing explicit photos that are then used to blackmail the girls into “ takingit to the next level” by threatening to send the photos to

their friends andfamily. Blackmail used against the victims can also include threats against theirloved ones or people from their community.

Holly V. Hays from Indystar. comsays, “ From October 2013 to April 2016, the tip line received more than 1, 400reports of sextortion. Of those cases… average age: 15. The youngest: 8.

” Thetip line refers to the NCMEC CyberTipline and the reports they gave suggestthat sextortion is often used against girls still in high school or even middleschool. NCMEC stands for National Center for Missing & Exploited Children. Oneof the most important ways for parents to prevent this crime to happening totheir children is by keeping a healthy communication with them, so their childfeels comfortable enough to approach them if the situation occurs. Parentsshould also ensure that their children are not sharing too much informationonline. Sextortion can be closelyrelated to child pornography, but not always. Forensics There are multipleways to catch someone that has saved or distributed child pornography, butdigital forensics is the most significant. The offenders are always finding newways to distribute child pornography.

They use encryption techniques and theDark Web to hide their images and videos. Some offenders belong to criminalorganizations that sometimes have security instructions that are used to evadelaw enforcement. Offenders also keep files in an unallocated space on theirdevice, so when recovered there are no dates, times, file names, and an originallocation of where it was before it was deleted. Whatever is done on a digitaldevice is always recorded and can almost always be recovered. Therefore, digital forensics is so

important. Oneof the most recent examples of digital forensics being used to convict someonewas when a 18-year-old woman was found with a self-inflicted gunshot wound. AnIndianapolis Metropolitan Police Department Officer was accused of deletingmessages on the woman’s phone.

The phone ended up being disabled due to numerousfailed attempts by family and police officers trying to guess the password tothe phone. A digital forensics company called Cellebrite Services, hadextracted the information from the phone with the proof of the deleted textmessages. There would not have been a case without the deleted messages. Everytime a case is solved like this, the manufacturer of the device tends to takenote. The manufacturer will begin developing a new way to make theirinformation more secure and harder to access. This means that digital forensicexperts will also have to develop new ways of obtaining information from devices. When technology progresses, so does digital forensics.

Therefore, more people are coming to the digital forensic field and it is needed. With theadvancement in technology, criminals are finding new ways to break the law andit is the job of a digital forensic expert is to keep up to date with tools andtechnologies. The tools used are considered to give active or live analysis ofa device.

Sleuthkit. org says, “ Autopsy® is a digital forensics platform andgraphical interface to TheSleuth Kit® and other digital forensics tools. It is used bylaw enforcement, military, and corporate examiners to investigate what happenedon a computer. You can even use it to recover photos from your camera’s memorycard.

” The investigator must be able to perform various tasks, such as recoverdata, trace hacks, and gather and maintain evidence. All these things requirethat the equipment and knowledge to use them is up to date. A Growing FieldTheuse of computers and other technology is growing throughout the world and it isn’tstopping soon. According to the Bureau of Labor Statistics, the job outlook forForensic Science Technicians is expected to grow 17% from 2016-2026. This isjust one job out of the entire field and it is above average.

It is generally asmall part of the digital forensic field, but it is expected to create 2, 600jobs within a 10-year period. Computer system analysts and information securityanalysts are expected to grow by 22% through 2012-2022 with 120, 000 new jobscreated. As these fields grow, the number of cases that can be worked on andthe integrity of the evidence gathered will increase. Withthe digital forensic field growing and the use of technology increasing, theneed for high performance equipment increases. The digital forensic market is estimatedto reach over 1 billion dollars between 2017-2022. Majority of the businessesthat provide these machines are huge companies like AccessData Group LLC, Paraben Corporation, CISCO, Guidance Software Inc., NUIX, Binary IntelligenceLLC, IBM Corporation.

These tools are needed to increase security. Along withthe rise in a need of security, a rise in other jobs have occurred, including, banking, health care, information technology, law enforcement, and education. Conclusion Cybercrime has risen at an alarming rate with the advancementof technology. In parallel, so has digital forensics. Child pornography, Sextortion, and any other data on a digital device that needs to be recovered

in cohesionwith law enforcement are tasks that digital forensics takes care of. Digital forensicsuses various tools and techniques that allow the recovery of data. Anything ona computer leaves a “ footprint” that can be seen, essentially everything isrecorded and can almost never be erased.

The digital forensics market isbecoming more lucrative and is amassing very quickly. Jobs are only going to increaseas long as the use of computers is being increased. With cybercrime like childpornography and sextortion, digital forensics will always be one of the mostimportant sciences in the forensic field.