

Digital Technology Use Factors
Which Indicate Increased Sex Offender
Investment In Digital Sexual Content

Jim Tanner, Ph.D.
KBSolutions Inc.
www.kbsolutions.com
lists@kbsolutions.com

I have been conducting forensic examinations of convicted sex offenders' digital devices since 1998. I worked as a cyber crime analyst for and with various state level probation departments during this period. My work environment was unique in that the offenders were convicted and on probation. I worked live on the offender's devices, in the offender's home or office environment and with the offender present. During my examinations I talked with the offender, discussed his/her cyber behavior and asked questions about what I was finding. This afforded me a fuller understanding of their cyber-sexual behavior than I would have obtained working on the device in a forensic lab or simply talking to an offender in absence of the device itself.

Based on more than 1,600 examinations of offenders' digital devices, I found 14 factors which indicate an offender has an investment in digital sexual content that is beyond the norm for convicted sex offenders. This investment often leads to resistance to containment/treatment and a higher probability of recidivism. While some of these factors may be benign for the public at large, they become important when found in the technology use of individuals charged with or convicted of sex crimes. It is when one's behavior draws the attention of law enforcement that the factors below become significant.

When considering the digital behavior of sex offenders, one should seek to understand the big picture of the offender's technology use and how it relates to sexual behavior (also see www.kbsolutions.com/beyond.pdf and www.kbsolutions.com/PornContraband.pdf). As offenders engage in more of the factors, their investment in cyber-sexual content increases. It has been my experience that increased investment in cyber-sexual content also leads to an increase in resistance to containment and treatment.

Since 2010 (the first release of this paper), I have determined that six of the factors are more important than the other eight. While all 14 remain measures of investment, the "big six", if present, should always move an individual out of low risk categorization.

The 14 Factors

The Big Six

1. Any cataloging of sexual content.
2. Membership in adult sites or organizations promoting sexual behavior.
3. Pictures with sexual content taken by, created by, or altered by the offender.
4. Internet grooming or solicitation of minors using any medium.
5. Usegroup or Peer to Peer activity seeking sexually explicit materials.
6. Use of IRC/IM, SMS/MMS, Web 2.0 or other "alternate" venues to obtain content.

The Other Eight

7. More than 10 hours a week of sexual content.
8. High ratio of sexual sites to general surfing, regardless of number of hours.
9. Saved versus cached material. As the ratio of saved to cached goes up, so does the risk.
10. Low ratio of "Splash Page" to "Inside Site" images.
11. Nude pictures of the offender on the offender's devices.
12. Erotic literature written by the offender.
13. Trophy materials stored on the offender's devices.
14. "Red Flag" Themes, if they have a significant number of images/files:

Each of these factors are explained in the pages that follow. I believe a complete psycho-sexual evaluation cannot be obtained without both a polygraph and a digital technology examination. It is my intention that this paper serve as a checklist to evaluators, containment/treatment teams, and forensic examiners when considering the digital behavior of sex offenders.

As technology advances, changes will undoubtedly occur in the number and types of indicators related to cyber-sexual investment. I will endeavor to keep this paper updated as technology changes. This paper, in its most recent form will always be available at www.kbsolutions.com/KBS14Factors.pdf.

Factor 1: Any cataloging of sexual content.

Related to saving material is cataloging material. When a User saves material, they can create and name folders, rename content, and save the material in any organizational structure that makes sense to the offender. When offenders begin to organize saved material into categories they have become ‘collectors’. Often the names of the folders are elucidating for evaluators and treatment teams. For example, folders named ‘blondes’, ‘girls 13’, or ‘outdoors’ give us an insight to the offender’s cognitive structure.

Further, keeping sexual content (saving it outside the cache) indicates an offender’s unwillingness to part with the material. They don’t want to lose it, they want to keep it and use it again in the future. Organizing and cataloging the saved material is a major step further into the investment in sexual content. The organization and cataloging of material is done primarily for ease of access and focus. It is faster and easier for an offender to find specific content if they have it organized and cataloged.

Cataloging behavior indicates a substantial increase to the investment in digital sexual content.

Factor 2: Membership in adult sites or organizations promoting sexual behavior.

Adult web sites make money by selling memberships. The average adult site will give away 10-20 images as loss leaders to encourage visitors to purchase membership in the site. This is analogous to your local grocery store putting green beans on sale for 10 cents a can to get you into the store. The logic of loss leaders is that once in the store, you will also purchase other items at full price.

Adult sites work on the same principle. By giving away 10-20 images or short video clips free, they are betting the visitor will become interested in seeing the remainder of the site’s content and be willing to purchase a membership to have access to the thousands of images/videos.

There are many adult sites available on the web. Because of the sheer number of sites in existence, there are literally hundreds of thousands of images and videos available free on the web. One could view sexual content for months, if not years, and never have to pay for any content. Thus, when an offender decides to pay money to purchase membership in a site, it is an indication of an increased investment (literally and figuratively) in sexual content.

Concomitantly, when an offender joins groups which promote sexual behavior (e.g. adultfriendfinder, squirt, alt, etc.), they are signifying an increased investment in and identification with sexual content. The type and focus of member groups should be carefully examined by the treatment team.

I caution the reader that I am not talking about behavior between non-offender consenting adults. Membership in adult sites or sexually focused groups for non-offenders is not at issue here. It is when one’s behavior draws the attention of law enforcement that membership in such sites and groups becomes significant.

Factor 3: Pictures with sexual content taken by, created by, or altered by the offender.

Images or videos do not have to contain the offender to be significant. If the offender has used their digital equipment to create sexual images or videos of others it again raises the question of what they are doing with them. The offender is a producer of adult material rather than just a consumer. This indicates an increased investment in digital sexual content. The created material might include artwork (digital or scanned) that the offender created.

It is also important to note whether the offender has altered digital sexual content. Altering would include cropping, editing, retouching, and morphing content. Other than removing copyright notices, any alteration of an image indicates increased investment in the digital content.

Again, I caution the reader that I am not talking about behavior of or between non-offender consenting adults. It is when one's behavior draws the attention of law enforcement that the manipulation of digital content becomes significant.

Factor 4: Internet grooming or solicitation of minors using any medium.

At the federal level a high proportion of cases involve child pornography or Internet grooming/solicitation of minors. These crimes are heinous. Fortunately (or unfortunately, I'm not sure which), at the state and local level this is not the case. Only a small percentage of state level sex offenders are involved with child pornography or Internet solicitation/grooming of minors. Most state level offenders generate victims from a position of trust. Family, relatives, students, members of congregations, etc. are the common victim pool.

Most sex offenses are prosecuted at the state and local level. The sheer number of victims generated by state level sexual offenses is staggering. As a result, most offenders nationwide generate victims through a position of trust. My comments should not be construed to minimize the horrendous carnage visited upon children by federal level offenders. Nor are they intended to diminish the efforts or value of national efforts to catch Internet offenders. My intent is to point out that the vast number of victims are not groomed via digital technology.

Soliciting through digital devices is, then, "outlier" behavior. It violates the standard MO of sex offenders. Sex offenders groom the victim's environment as well as the victim. Internet solicitation and grooming violates this normal approach. It is impossible to groom the victim's environment over the Internet. Moreover, it is not possible to ensure who, exactly, your victim is. Offenders who solicit and groom over the Internet often recognize that it may be a cop they are grooming (has anyone not seen at least one episode of *To Catch A Predator?*). There are two kinds of individuals who will solicit or groom over the internet:

- A. The offender who is so stupid they don't know it could be a cop on the other end. This stupidity makes them dangerous. They could (and probably would) try anything.
- B. The offender who understands it may be a cop on the other end, but whose drive to get a victim outweighs their instinct for self-survival. These offenders generally ask "... are you a cop?". This overriding drive to get a victim makes them dangerous.

Offenders who solicit or groom through digital devices are high risk and should be treated as such. When an offender's digital devices indicate they were used to initiate contact with, solicit, and/or groom minors, it is an indication that the offender has a significant investment in digital sexual content. If the presenting charge does not involve solicitation or grooming via digital devices, the presence of it on their devices should immediately raise the level of containment for any offender.

Factor 5: Usegroup, Peer to Peer or TOR activity seeking sexually explicit materials.

Usegroups: Decades ago bulletin boards (Usegroups) were the primary source of sexual content. There are many Usegroups still in existence that appear to specialize in sexual content. The last time I counted (2008) 3.7% of all Usegroups focused on sexual content. There were 1,600 Usegroups dedicated to sexual content in 2008. Usegroup materials are primarily advertisements for adult sites and amateurs posting images. Downloading from Usegroups is time consuming (even when automated) and generally requires unpacking the content. Moreover, when downloading from a Usegroup, one does not know what they are getting. Hence, it is risky behavior. Few sex offenders will download from Usegroups (less than 2% in my experience). When you find an offender who continues to use this approach to gaining content, it indicates a heavy investment in sexual content.

Peer to Peer (P2P): P2P has blossomed in the past decades. Currently most of the exploitation of children material is still passed via P2P. Sex offenders who are active in P2P are generally interested in receiving or distributing child pornography. In my experience offenders who are not interested in child pornography are not involved in P2P activities to any great extent. Finding P2P activity, especially high levels of P2P activity, on an offender's digital devices indicates an increased investment in sexual content, and more specifically an increased investment in illegal sexual content.

TOR (The Onion Router Network) "The dark web". In recent years there has been an increasing number of sex offenders moving from P2P to TOR. This movement is a result of P2P being compromised by law enforcement while TOR remains effectively secure. Those individuals utilizing TOR for access to illicit materials are more sophisticated users and should not be considered low risk.

Factor 6: Use of IRC/IM, SMS/MMS, Web 2.0 or other "alternate" venues to obtain content

There are a few technologies which are not generally associated with sexual content. If an offender is found to have used these technologies to further sexual interests, it indicates an increased investment in digital sexual content and a concomitant increase in resistance to containment and treatment. These technologies are:

- A. IRC/IM (Chat/Instant Messaging).
- B. SMS/MMS (Texting - risk is determined by level of use and age of correspondents)
- C. Virtual world Web 2.0 (e.g., Second Life - yes, it has sexual content)

Factor 7: More than 10 hours a week of sexual content.

Addiction to cyber-sex is a concern for those charged with or convicted of sex crimes. There is no hard and fast rule as to what constitutes a threshold of addiction. Each individual's pattern of sexual content use must be compared to their pattern of general (non-sexual) technology use.

During my examinations I found that offenders who used digital sexual content more than 10 hours a week also reported higher incidence of intrusive sexual thoughts, deviant sexual ideation, and feeling like they were 'addicted' to technology use. Using technology more than 10 hours to obtain sexual content indicates enhanced investment in digital sexual content.

Factor 8: High ratio of sexual sites to general surfing, regardless of number of hours.

Regardless of the total number of hours spent on the Internet (or using technology), the ratio of sexual content to non-sexual content is an important indicator of investment in digital sex. Calculating the percentage of digital sexual activity to non-sexual digital activity gives the treatment team valuable information concerning investment. An offender who views sexual content 80 hours of 100 hours of technology use is different than the offender who views sexual content 10 hours of 100 hours technology use. Similarly, an offender who views sexual content 8 of 10 hours of technology use is different than the offender who views sexual content 1 of 10 hours of technology use.

The higher the percentage (ratio) of sexual content to general technology use, the higher the investment in digital sexual content.

Factor 9: Saved versus cached material. As the ratio of saved to cached goes up, so does the risk.

Cached: When browsing the Internet, all browsers automatically write the contents of the sites visited to the local hard drive in a special folder called a 'cache'. This content is automatically stored by the browser and is not a 'purposeful download' of the material. Its presence on the storage media simply indicates the offender visited the site and/or viewed the material. Cached material should be considered differently than material that is saved by the offender.

Saved: When using a browser the User can right-click on the content and save it to the local hard drive. This "Save As" function is built into all major operating systems. The User can place the content (picture, video, etc.) anywhere on the storage media, can name the folder it is placed in, and can change the name of the content being stored. This "Save As" function requires human interaction; it is not automatic. Thus, when something has been 'saved' it indicates the content is of special significance to the offender.

The percent of saved material (offender took action) to cached material (offender simply viewed the material), is an indication of the investment the offender has to digital sexual content. The higher the proportion of saved material, the greater the investment.

Additionally, evaluators and treatment team members should pay attention to the themes contained in the saved material. Saved material indicates special interest on the part of the offender.

Factor 10: Low ratio of "Splash Page" to "Inside Site" images.

Splash Page: When visiting a website, the first page that displays is the 'home' or 'splash' page. This page is the portal that comes up when entering the top level domain URL into a browser (e.g. www.youtube.com). The splash page on adult sites is an advertisement. Splash pages generally contain several smaller images designed to entreat the User into clicking deeper into the web site. The economics of web site management dictate that images on the splash page be limited in size. Smaller images load faster and take up less room on the screen. The goal of the site's splash page is to get the User to 'drill down' by clicking on items to go deeper into the site. Due to size limitations, splash page images are generally of lower quality and splash videos short in length.

Inside Site: Material located on pages other than the splash page are accessible only by User action. Once a User clicks through or drills down into a site, the images are larger (full sized), higher quality, and the videos generally longer. Drilling down into a site indicates the offender has more interest in the material.

The extent to which an offender skims across splash pages versus drills down into site content is an indicator of investment in digital content. This is related to the Pace element of the TRAPS model of assessing sex offender's computer use (www.kbsolutions.com/beyond.pdf).

A thorough examination of URL histories indicates whether content was contained on a splash page or was deeper inside the site. However, a quick rule of thumb is to consider the size of the image on the media. Images smaller than 10kb are generally splash page content. Images between 10kb and 20kb could be either splash page or inside site material. Images larger than 20kb are generally found inside the site (the offender drilled down into the site to view it). The average splash page can have between 5 and 20 images. Pages located deeper in the site have fewer images (often only 1 image per page). Thus, even a 80:20 ratio of splash to inside can indicate significant drilling down behavior on the part of the offender.

Offenders found to have frequently drilled down into many sites (e.g. have a low ratio of splash page to inside site materials) demonstrate a higher investment in digital sexual content. Evaluators and treatment teams should also pay particular attention to the themes of the content viewed from inside sites - it is of interest to the offender.

Factor 11: Nude pictures of the offender on the offender's devices.

It is my experience that 25% or less of the offenders whose devices I examined had pictures of themselves nude on their devices. When images of the offender are found on their devices, it should raise the question "...what are they doing with the pictures?". Are they sharing them? With whom are they sharing?

Having nude pictures of themselves indicates an increased investment in defining themselves as a sexual object. The more graphic the images, the greater the investment in the offender seeing himself/herself primarily as a sexual object. This focus in self-definition is reflective of a resistance to containment and treatment.

It is important to note that I am not talking images commonly found among those participating in "sexting" behavior that is becoming more common among young people. I'm talking about images contained on the digital devices of individuals charged with or convicted of sex crimes, not adolescent 'felony stupid' behavior. Nor am I talking about behavior of or between non-offender consenting adults. It is when one's behavior draws the attention of law enforcement that the possession of self-erotic images becomes significant.

Factor 12: Erotic literature written by the offender.

In the same vein as creating or altering images or videos, offenders who produce erotic literature are demonstrating an increased investment in sexual content. Adult ("erotic") stories abound on the Internet and in print. Some of the topics contained in erotic literature are illegal when found in images/videos (e.g. sex with children). For example, in June of 2010 there were 21,488 stories on literotica about incest and 9,787 stories about non-consensual sex (rape). Offenders who have shifted their focus in stimuli from images to text are often doing so to avoid prosecution. While the creation of such prose may be protected by the 1st Amendment, it should be of concern when the prose is created by sex offenders.

The act of creative writing takes more imagery and focus than is commonly found among amateurs who produce sexual images/videos. Therefore, it is of concern when we find evidence that a sex offender has been producing written erotica.

Again, I caution the reader that I am not talking about behavior of or between non-offender consenting adults. It is when one's behavior draws the attention of law enforcement that the creation of written erotic content becomes significant. The presence of the material indicates an increased investment in sexual content.

If offender-produced erotica is discovered, the content of the material should be of great interest to the treatment team.

Factor 13: Trophy materials stored on the offender's devices.

Offenders often make the news, articles/stories are often available in digital formats. In about 10% of the digital devices I examined, I found offenders saving articles, clippings, and/or video news stories about themselves. These articles constitute "trophy materials" and indicate the offender has not fully grasped the magnitude of their behavior.

Additionally, when victims are family members it is not uncommon to find pictures of the victim on the offender's digital devices. Sometimes this possession is inadvertent or unintentional post conviction, often it is purposive. Examining the last access dates of images helps the treatment team determine whether the image should be considered trophy material or not (if viewed and kept after being told to remove images of the victim, it clearly constitutes trophy material).

If the local jurisdiction has web accessible sex offender registries, I find that approximately 10% of offenders will visit the registry and search for themselves and others within their community. When questioned about this behavior offenders often tell me that it makes them feel less deviant to know others have done what they did. Looking themselves up may be curiosity, but surveying the registry for others constitutes behavior that indicates more than curiosity, it is a form of trophy activity.

The presence of trophy materials on the digital devices of sex offenders indicates a greater investment in their behavior.

Factor 14: "Red Flag" Themes, if they have a significant number of images/files:

As indicated in the TRAPS model (www.kbsolutions.com/beyond.pdf), digital devices yield information about an offender's themes of interest. Categories of images are not themes until there is a consistent pattern found within the digital device. As a general rule of thumb, I do not consider something a theme unless I find more than 30-50 indications of interest (i.e. 30-50 pictures or videos, 15-20 searches for the same or similar topics, etc.). These themes are often unrelated to the behavior resulting in the precipitating offense. Knowing the offender's themes of interest substantially advances the job of containment and treatment.

More importantly when certain "Red Flag" themes are discovered, it signifies increased investment in illegal sexual behavior. The most common Red Flag themes I have found are (in order):

- A. Bestiality
- B. Exhibitionism
- C. Voyeurism
- D. Non-Consensual
- E. Minors/Children

A particularly important theme, Snuff materials (victim is killed), is rare but always significant.

Presence of any Red Flag theme indicates increased investment in sexual content.