**IMPACT OF TECHNOLOGY ON CRIME**

SUBMITTED FOR PARTIAL FULFILLMENT OF

BACHELOR’S DEGREE (HONS.) IN STATISTICS

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CERTIFICATE

This is to certify that the project report on the topic,

***“Impact of Technology on Crime”*** has been

successfully collected, tabulated, analysed and presented

by ***Shubham Kumar***, student of B.Sc. (HONS.) Statistics,

semester-6, B.H.U, during session- 2022-2023.

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His constant encouragement, insightful feedback, and unwavering support have been instrumental in shaping my

project and making it successful. His willingness to devote his time and energy to helping me with my project is greatly appreciated, and I am truly grateful for the opportunity to work under his supervision.

His mentorship has not only helped me to develop my technical skills but has also taught us valuable life lessons that will stay with me throughout my career. I feel fortunate to have had the opportunity to learn from him, and I will always cherish the experiences and knowledge gained under his guidance.

Sincerely,

Shubham Kumar

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INTRODUCTION

The impact of technology on crime is a complex and multifaceted topic that has become increasingly important in recent years. With the rapid development and widespread adoption of various technologies, such as social media, smartphones, and surveillance technology, the ways in which individuals commit and experience crime have changed significantly.

It is important to study the impact of technology on crime for several reasons. First, technology has created new types of crimes, such as cybercrime, that did not exist before. Cybercrime can involve theft, fraud, or harassment carried out using the internet or other digital technologies. These crimes can be difficult to detect and prosecute, and can have serious consequences for individuals and businesses.

Second, technology has also facilitated traditional crimes, such as theft or burglary. For example, criminals can use social media to gather information about potential targets, or use sophisticated tools to break into homes or businesses. Technology has also made it easier for criminals to communicate and coordinate their activities, making it more difficult for law enforcement to prevent and investigate crimes.

Finally, technology has also changed the way crime is perceived and experienced by individuals. For example, social media has made it easier for individuals to report crimes or to seek support from others. However, it has also increased the risk of cyberbullying and online harassment.

Overall, studying the impact of technology on crime is important because it can help us to understand the new and evolving forms of crime, as well as the challenges and opportunities created by technological advancements. This knowledge can inform policies and strategies aimed at preventing and responding to crime, and can help to ensure that our justice system remains effective and relevant in a rapidly changing technological landscape.

**Types of technology that have impacted crime:**

1. Social Media: Social media platforms such as Facebook, Twitter, and Instagram have enabled people to connect with each other on a global scale. However, they have also been used to commit crimes such as cyberbullying, harassment, identity theft, and cyberstalking. Social media has also been used by criminals to scout for potential targets and plan crimes.

2. Smartphones: Smartphones have revolutionized the way people communicate and interact with each other. However, they have also enabled criminals to communicate and coordinate their activities, making it more difficult for law enforcement to detect and prevent crimes. Smartphones have also been used to commit crimes such as theft, fraud, and cyberbullying.

3. Surveillance Technology: Surveillance technology includes devices such as CCTV cameras, drones, and body-worn cameras. These technologies have been used to prevent and detect crime, but they also raise concerns about privacy and civil liberties. Additionally, surveillance technology can be used by criminals to gather information about potential targets.

4. Cybersecurity Technology: Cybersecurity technology includes software and hardware designed to protect computer networks and systems from cyberattacks. Cybersecurity technology is crucial for preventing cybercrime, such as hacking, phishing, and identity theft.

5. Biometric Technology: Biometric technology uses physical characteristics such as fingerprints, facial recognition, and iris scans to identify individuals. Biometric technology has been used to prevent identity theft and to identify suspects in criminal investigations.

6. GPS Technology: GPS technology enables location tracking and navigation. It has been used to track suspects in criminal investigations and to prevent crimes such as car theft.

These are just a few examples of the types of technology that have impacted crime. It is important to note that technology is constantly evolving, and new types of technology will continue to emerge and impact crime.

**Types of crime emerged from technology:**

1. Cybercrime: Cybercrime refers to criminal activities that are carried out using the internet or other forms of digital communication. Cybercrime includes activities such as hacking, phishing, identity theft, cyberbullying, and the distribution of malware. Cybercriminals often use sophisticated techniques to steal sensitive data and money from individuals and organizations.

2. Online Fraud: Online fraud includes activities such as phishing scams, investment fraud, and fake websites that aim to steal personal and financial information from unsuspecting individuals. Fraudsters use the anonymity of the internet to create fake identities and deceive people into giving away their personal information or money.

3. Intellectual Property Theft: Intellectual property theft refers to the unauthorized use or theft of someone else’s intellectual property, such as patents, copyrights, and trademarks. With the advent of digital technology, intellectual property theft has become easier and more widespread, as it is now possible to copy and distribute digital content with relative ease.

4. Revenge Porn: Revenge porn refers to the distribution of sexually explicit images or videos of an individual without their consent. This type of crime has become more prevalent with the rise of social media platforms, where images and videos can be easily shared and disseminated.

5. Ransomware: Ransomware is a type of malware that encrypts an individual’s or organization’s data and demands payment in exchange for the decryption key. Ransomware attacks have become more common in recent years, with cybercriminals targeting businesses and organizations to demand large sums of money.

These are just a few examples of the new types of crime that have emerged as a result of technological advancements. It is important for law enforcement agencies and policymakers to stay up-to-date with these new types of crime and develop effective strategies to prevent and investigate them.

**Detection and Prevention:**

1. Artificial Intelligence (AI): AI can be used to analyse large amounts of data, such as social media posts or surveillance footage, to identify patterns and detect potential criminal activity. AI algorithms can also be used to predict future crime hotspots or identify individuals who are likely to commit a crime.

2. Predictive Analytics: Predictive analytics uses data and statistical algorithms to forecast future events, such as the likelihood of a crime occurring in a particular area. Law enforcement agencies can use predictive analytics to allocate resources more effectively and prevent crimes before they occur.

3. Biometrics: Biometric technology, such as facial recognition and fingerprint scanning, can be used to identify suspects in criminal investigations. This technology is particularly useful when traditional methods of identification, such as eyewitness testimony or DNA analysis, are not available.

4. Video Analytics: Video analytics technology can be used to analyse surveillance footage and identify potential criminal activity. Video analytics algorithms can detect unusual behaviour, such as loitering or sudden movements, and alert law enforcement agencies to investigate further.

5. Digital Forensics: Digital forensics involves the collection and analysis of digital evidence in criminal investigations. This includes analysing computer hard drives, mobile devices, and social media accounts to gather evidence that can be used in court. Digital forensics is becoming increasingly important as criminals use technology to commit crimes.

6. Crime Mapping: Crime mapping involves analysing crime data and mapping it onto geographic locations. This helps law enforcement agencies to identify crime hotspots and allocate resources more effectively. Crime mapping can also be used to identify patterns and trends in criminal activity, which can help to prevent future crimes.

These are just a few examples of how technology is being used to detect and prevent crime. It is important to note that technology is constantly evolving, and new methods of detecting and preventing crime will continue to emerge in the future.

**Law Enforcement and Justice System:**

1. Data Management: Law enforcement agencies collect vast amounts of data in the course of their investigations. Technology is being used to manage this data more efficiently, enabling investigators to quickly access relevant information and track criminal activity more effectively.

2. Body-Worn Cameras: Body-worn cameras are increasingly being used by law enforcement officers to record their interactions with the public. This technology has the potential to increase transparency and accountability, and can also provide valuable evidence in criminal cases.

3. Crime Analysis: Technology is being used to analyse crime data and identify patterns and trends. This can help law enforcement agencies to allocate resources more effectively and identify potential suspects.

4. Courtroom Technology: Technology is being used in courtrooms to present evidence and facilitate communication between judges, attorneys, and jurors. This includes the use of digital displays, videoconferencing, and other technologies to enhance the efficiency and effectiveness of court proceedings.

5. Cybercrime: The rise of technology has also led to an increase in cybercrime, such as hacking and identity theft. Law enforcement agencies are investing in new technologies and strategies to combat cybercrime and bring cybercriminals to justice.

6. Sentencing and Corrections: Technology is being used to improve the sentencing and corrections process. This includes the use of risk assessment tools to predict the likelihood of reoffending, as well as the use of electronic monitoring devices to track offenders who are on probation or parole.

These are just a few examples of how technology is transforming the way that law enforcement agencies and the justice system operate. As technology continues to evolve, it will be important for law enforcement and the justice system to stay up-to-date with new developments in order to effectively combat crime and ensure justice is served.

**Social and Psychological Impact:**

1. Cyberbullying: The rise of technology and social media has led to an increase in cyberbullying, which can have serious psychological effects on victims. This has prompted researchers to study the psychology of cyberbullying and develop strategies to prevent and address it.

2. Online Radicalization: The internet has made it easier for extremist groups to recruit members and spread their ideology. This has led to concerns about online radicalization and the potential for individuals to commit violent acts as a result.

3. Digital Footprints: The use of technology leaves a digital footprint that can be used to track and monitor individuals. This has led to concerns about privacy and the potential for individuals to feel like they are constantly being watched.

4. Desensitization: Exposure to violent content, such as violent video games or movies, can desensitize individuals to violence and lead to aggressive behaviour. Researchers are studying the impact of technology on desensitization and developing strategies to mitigate its effects.

5. Online Predators: The internet has made it easier for predators to target and victimize children. Law enforcement agencies are using technology to identify and prosecute online predators, while researchers are studying the psychology of online predator behaviour to develop better prevention strategies.

6. Addiction: Technology can be addictive, and excessive use can have negative social and psychological effects. Researchers are studying the impact of technology addiction on individuals and society, and developing strategies to promote healthy technology use.

These are just a few examples of how technology is affecting society and the psychology of criminal behaviour. It is important to continue studying the social and psychological impact of technology to develop strategies to prevent and address negative effects.

Methodology of The Survey

* **Planning of the survey**:

The main purpose of the project **Impact of technology on crime** is to better understand the complex relationship between technology and crime and to identify ways to mitigate the negative impacts while harnessing the positive aspects of technology to prevent and address criminal activities.

* **Objective of the survey**:
* To explore the relationship between technology and crime.
* To identify the challenges and opportunities presented by technology in crime prevention and detection.
* To assess the effectiveness of existing laws and policies related to technology and crime.
* To examine the social and psychological impacts of technology on crime.
* To develop strategies for addressing the negative impacts of technology on crime
* **Area of the survey:**

According to the aim of the survey the area for sample collection would be broader but we have fixed it to our hometowns **(*Varanasi and Siddharth Nagar***) and students of ***Banaras Hindu University***. Those respondents who are in our hometown are easily available and respondents from Banaras Hindu University are achievable through google form to support us for this survey and they co-ordinated very sincerely.

* **Sampling technique:**

A group of units or elements which have well defined characteristics under study, called Population. The population may be finite or infinite, a finite population is one in which unit of population is finite and an infinite population is one in which member of population is infinite. A sample is a finite subset of statistical individuals in a population and a number of individuals/units in a sample is called a sample size. On the basis of sample, we can estimate about the population parameter in which we are interested. The sample was selected by using convenience sampling as sampling technique & Sample size collected for survey is Banaras Hindu University.

* **Data collection:**

This project only consists of **Primary Data** which was collected through *Online Questionnaire Method (Google form is used)* from the students of **Banaras Hindu University.**

* **Data analysis and reporting:**

Data analysis involves summarizing the Raw data and interpreting their meaning which provides clear answer to questions in which we are interested. For this purpose, we have used software named as MS-EXCEL & MS-WORD. Then we analyse and interpret the data using statistical tools (**bar diagram, histogram** and **pie chart**) available in MS EXCEL.

* **Duration of the survey**:

The questionnaire has been prepared by me, **Shubham Kumar** and taken the responses in the 3rd  week of March in our hometown and in **BHU**, questionnaire was distributed to students through WhatsApp & E-mail to get response in 1st  week of April.

*TABULATION*

*&*



*GRAPH*

*INTERPRETATION*

**ANALYSIS OF SECTION 1 ( Demographic Information )**

### Table-1

Gender wise respondent

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gender | Frequency | Percent | Valid Percent | Cumulative Percent |
| Male | 78 | 80 | 80.4 | 80.4 |
| Female | 19 | 20 | 19.6 | 100 |
| Total | 81 | 100 | 100.00 |  |

**Chart 1**

Gender Distribution

Interpretation:

The fact that the survey responses are predominantly from males (83%) and a minority from females (17%) could indicate potential gender differences in how people perceive or experience the impact of technology on crime. Research has shown that gender can influence the likelihood of experiencing victimization and the types of crimes that are committed against individuals. Therefore, the gender composition of the sample could affect the conclusions drawn from the data.

In conclusion, while the uneven gender distribution in the survey responses may indicate potential gender differences in perception or experience of the impact of technology on crime, it also highlights the importance of considering the representativeness of the sample. By increasing the representation of diverse groups, researchers can more accurately capture the nuances of how different individuals experience and perceive technology-related crime and develop policies and interventions that are effective for all members of society.

**Table 2**

Age of respondents

|  |  |  |
| --- | --- | --- |
| **Age Group** | **Frequency** | **Percent** |
| Under 18 | 2 | 2.1 |
| 18-24 | 89 | 91.7 |
| 25-34 | 5 | 5.2 |
| 35 and above | 1 | 1.2 |

**Chart 2**

Age Distribution

Interpretation:

From the above chart, it is clear that 2% of the respondents are under 18 years of age and majority of the respondents i.e. 93% belong to the age group 18-24 years followed by people with age above 35 years contributing 4% in the responses.

However, it is important to note that age can play a significant role in shaping individuals' experiences and perceptions of crime and technology, and therefore, the overrepresentation of young adults may skew the findings. The views and experiences of younger age groups may differ significantly from those of older adults, who may have more experience with crime and technology or hold different attitudes and values towards them.

**Table 3**

Occupation

|  |  |  |  |
| --- | --- | --- | --- |
| **Occupation** | **Frequency** | **Percent** | **Valid Percent** |
| Student | 99 | 94 | 94.3 |
| Employed full-time | 3 | 3 | 2.8 |
| Employed part-time | 2 | 2 | 1.9 |
| Self-employed | 0 | 0 | 0 |
| Homemaker | 0 | 0 | 0 |
| Unemployed | 1 | 1 | 1 |

**Chart 3**

Occupation Distribution

Interpretation:

It appears that the majority of respondents were students with 94% of the total responses, followed by full-time employed individuals(3%). This suggests that the sample may not be representative of the broader population, as it over-represents the views of students and under-represents the views of part-time employed, unemployed, and retired individuals.

However, this may also reflect the fact that students are more likely to have an interest in the impact of technology on crime, or may have been more easily accessible for surveying.

**ANALYSIS OF SECTION 2**

Table 1

People who have noticed an increase or decrease in crime rates in their community over the past few years

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Significant Increase | 15 | 7 | 22 | 68.18 | 31.82 |
| Slight Increase | 30 | 9 | 39 | 76.92 | 23.08 |
| No Change | 3 | 3 | 6 | 50.00 | 50.00 |
| Slight decrease | 20 | 4 | 24 | 83.33 | 16.67 |
| Significant decrease | 9 | 1 | 10 | 90.00 | 10.00 |
| Not Sure | 3 | 5 | 8 | 37.50 | 62.50 |

Chart 1

Opinion Distribution

Graph 1

Interpretation:

From the above chart it is clear that majority (37%) of the people think that there is a slight increase in crime with increase in technology followed by approximately 19% of the people who think that there is a significant increase in crime. Around 32% of respondents believe that there is decrease in crime. Around 5% of the respondents are not sure if there is an increase or decrease in crime with increasing technology.

Chart 2

Forms response chart. Question title: Has the use of technology made it easier for criminals to commit crimes ?
. Number of responses: 109 responses.

4.6%

Table 2

Gender wise response weights

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Strongly Agree | 12 | 3 | 15 | 80.00 | 20.00 |
| Disagree | 9 | 3 | 12 | 75.00 | 25.00 |
| Neutral | 12 | 7 | 19 | 63.16 | 36.84 |
| Agree | 44 | 14 | 58 | 75.86 | 24.14 |
| Strongly Disagree | 3 | 3 | 6 | 50.00 | 50.00 |

Graph 2

Interpretation:

Here it is observed that majority of the respondents (67%) agree with the fact that use of technology has made it easier for criminals to commit crime. Around 15% disagree with the same.

Chart 3

Forms response chart. Question title: Have you seen any surveillance cameras or other types of technology used in your community to prevent crime ?
. Number of responses: 109 responses.

10.1%

Table 3

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Yes, frequently | 34 | 11 | 45 | 75.56 | 24.44 |
| Yes, occasionally | 31 | 13 | 44 | 70.45 | 29.55 |
| No never | 9 | 2 | 11 | 81.82 | 18.18 |
| Not sure | 6 | 3 | 9 | 66.67 | 33.33 |

Graph 3

Interpretation:

From the above graph we see that around 41% of the respondents have seen the use of surveillance cameras or other types of technology used in their community frequently while around 40% have seen it occasionally.

It is important to note that around 10% have never seen the use of surveillance cameras or other types of technology in their community to prevent crime.

Chart 4

Forms response chart. Question title: Do you believe that the use of surveillance cameras or other types of technology in your community is effective at preventing crime ?
. Number of responses: 109 responses.

Table 4

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Very effective | 31 | 6 | 37 | 83.78 | 16.22 |
| Somewhat effective | 38 | 17 | 55 | 69.09 | 30.91 |
| Not very effective | 10 | 4 | 14 | 71.43 | 28.57 |
| Not at all effective | 1 | 1 | 2 | 50.00 | 50.00 |
| Not sure | 0 | 1 | 1 | 0.00 | 100.00 |

Graph 4

Interpretation:

From here we can infer that around 84% of the respondents believe that the use of surveillance cameras or other types of technology in their community is effective at preventing crime. It is also important to note that around 14% of the respondents believe that technology hasn’t been that effective in preventing crime in their community.

Chart 5

Forms response chart. Question title: Have you ever been the victim of a crime that was captured on a surveillance camera or otherwise involved the use of technology ?
. Number of responses: 109 responses.

Table 5

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Yes | 20 | 5 | 25 | 80.00 | 20.00 |
| No | 51 | 22 | 73 | 69.86 | 30.14 |
| Maybe | 9 | 2 | 11 | 81.82 | 18.18 |

Graph 5

Interpretation:

It is clear that majority of the respondents (67%) have not been the victim of a crime that was captured on a surveillance camera or otherwise involved the use of technology followed by around 23% respondents who have been the victim of a crime that was captured on a surveillance camera or otherwise involved the use of technology.

Around 10% of the respondents are not sure whether they have been the victim of a crime that was captured on a surveillance camera or otherwise involved the use of technology.

Chart 6

Forms response chart. Question title: Do you feel that the use of facial recognition software by law enforcement is an invasion of privacy ?
. Number of responses: 109 responses.

Table 6

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Strongly Agree | 15 | 3 | 18 | 83.33 | 16.67 |
| Somewhat agree | 32 | 8 | 40 | 80.00 | 20.00 |
| Somewhat disagree | 17 | 11 | 28 | 60.71 | 39.29 |
| Strongly disagree | 7 | 3 | 10 | 70.00 | 30.00 |
| Not sure | 9 | 4 | 13 | 69.23 | 30.77 |

Graph 6

Interpretation:

* Around 53% of the respondents agree with the fact that use of facial recognition software by law enforcement is an invasion of privacy.
* Approximately 35% of the respondents disagree with the fact that that use of facial recognition software by law enforcement is an invasion of privacy.
* Nearly 12% of the respondents are not sure whether the use of facial recognition software by law enforcement is an invasion of privacy or not.

Chart 7

Forms response chart. Question title: Do you think that predictive policing algorithms are a useful tool for law enforcement to prevent crime, or do they unfairly target certain communities or individuals ?
. Number of responses: 109 responses.

Table 7

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Ques 7** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Very useful | 27 | 4 | 31 | 87.10 | 12.90 |
| Somewhat useful | 29 | 16 | 45 | 64.44 | 35.56 |
| Somewhat unfair | 10 | 2 | 12 | 83.33 | 16.67 |
| Very unfair | 2 | 1 | 3 | 66.67 | 33.33 |
| Not sure | 12 | 6 | 18 | 66.67 | 33.33 |

Graph 7

Interpretation:

* Around 70% of the respondents believe that the predictive policing algorithms are useful tool for law enforcement to prevent crime.
* Approximately, 11% think that the use of predictive policing algorithms are somewhat unfair.
* It is also important to note that around 16.5% are not sure whether the use of predictive policing algorithms are fair or unfair

Chart 8

Forms response chart. Question title: Do you think that there should be limits or regulations on the use of surveillance cameras, facial recognition software, or other types of technology by law enforcement ?
. Number of responses: 109 responses.

3.7%

Table 8

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Strong limits | 13 | 3 | 16 | 81.25 | 18.75 |
| Some limits | 56 | 17 | 73 | 76.71 | 23.29 |
| No limits | 9 | 7 | 16 | 56.25 | 43.75 |
| Not sure | 2 | 2 | 4 | 50.00 | 50.00 |

Graph 8

Interpretation:

* 67% of the respondents think that there should be some limits or regulations on the use of surveillance cameras, facial recognition software, or other types of technology by law enforcement.
* The percent of respondents who think that there should be strong limits or regulations and no limits or regulations are approximately equal with 14.7% of weight each.
* Rest of the respondents are not sure whether or not there should be regulations or limits.

Chart 9

Forms response chart. Question title: How do you think that the use of technology in law enforcement affects community-police relations ?
. Number of responses: 109 responses.

7.3%

Table 9

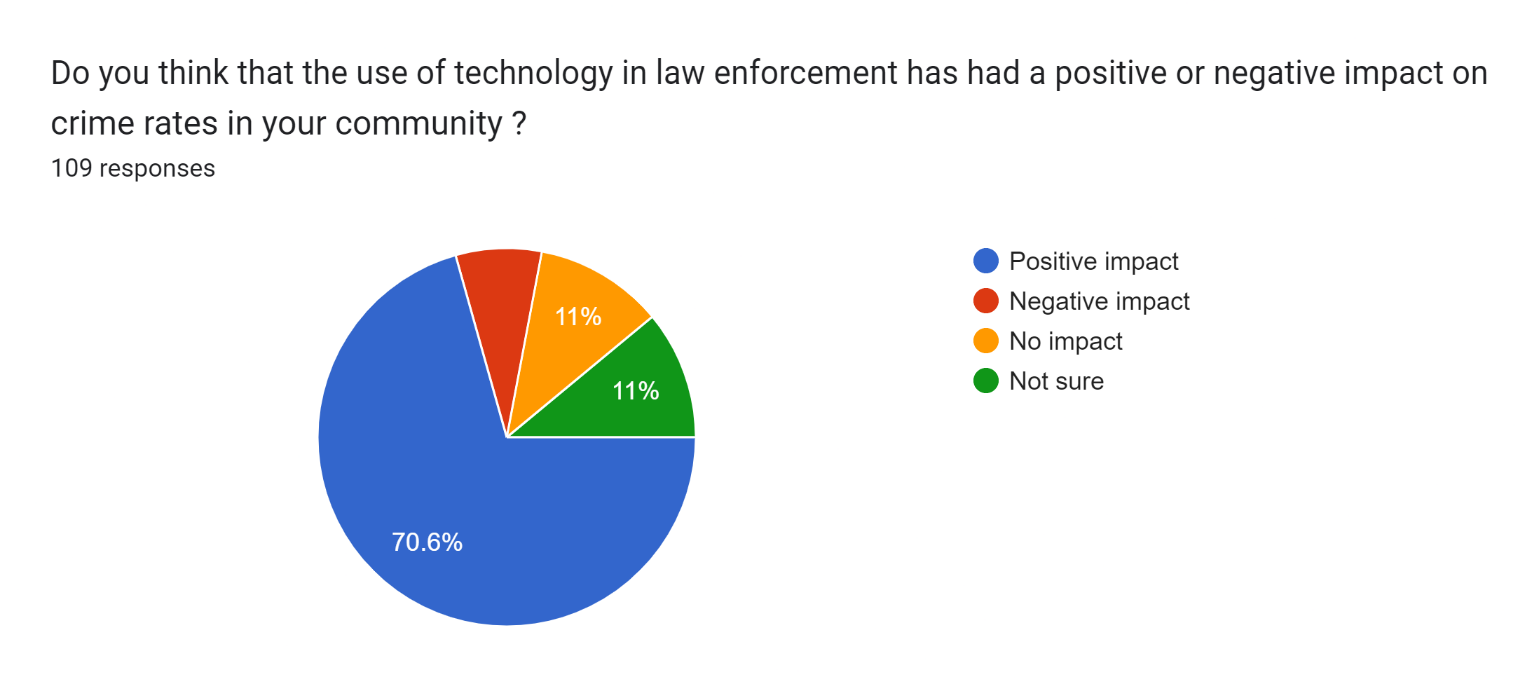
|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Positive impact | 54 | 17 | 71 | 76.06 | 23.94 |
| Negative impact | 10 | 4 | 14 | 71.43 | 28.57 |
| No impact | 6 | 2 | 8 | 75.00 | 25.00 |
| Not sure | 10 | 6 | 16 | 62.50 | 37.50 |

Graph 9

Interpretation:

* Around 65% of the respondents believe that the use of technology in law enforcement affects community-police relations positively.
* Approximately 13% of the respondents believe that the use of technology in law enforcement affects community-police relations negatively.
* Rest of the respondents either think that there is no affect or are not sure of how the use of technology in law enforcement affects community-police relations.

Chart 10



7.3%

Table 10

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Positive impact | 60 | 17 | 77 | 77.92 | 22.08 |
| Negative impact | 6 | 2 | 8 | 75.00 | 25.00 |
| No impact | 10 | 2 | 12 | 83.33 | 16.67 |
| Not sure | 4 | 8 | 12 | 33.33 | 66.67 |

Graph 10

Interpretation:

* Around 71% of the respondents think that use of technology in law enforcement has had a positive impact on crime rates in their community.
* Approximately 7% of the respondents think that use of technology in law enforcement has had a negative impact on crime rates in their community.

Chart 11

Forms response chart. Question title: Would you support the use of more or less technology in law enforcement in your community ?
. Number of responses: 109 responses.

2.8%

Table 11

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| More technology | 63 | 17 | 80 | 78.75 | 21.25 |
| Less technology | 9 | 9 | 18 | 50.00 | 50.00 |
| No change | 3 | 0 | 3 | 100.00 | 0.00 |
| Not sure | 5 | 3 | 8 | 62.50 | 37.50 |

Graph 11

Interpretation:

* Around 73% of the people support use of more technology in law enforcement in their community.
* Approximately 16.5% of the respondents support use of less technology in law enforcement in their community.

Chart 12

Forms response chart. Question title: Has technology led to a decrease or increase in traditional crimes like theft and burglary ?
. Number of responses: 109 responses.

Table 12

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Opinion** | **Male** | **Female** | **Total** | **Male %** | **Female %** |
| Decrease | 53 | 22 | 75 | 70.67 | 29.33 |
| Increase | 27 | 7 | 34 | 79.41 | 20.59 |

Graph 12

Interpretation:

* Majority of the respondents (around 69%) believe that there is a decrease in traditional crimes like theft and burglary due to the use of security systems and home automation technology.
* Around 31% of the respondents think that there is an increase in traditional crimes like theft and burglary due to criminals using technology to surveil potential targets and bypass security systems.

Chart 13

Forms response chart. Question title: Has the use of technology led to an increase or decrease in cybercrimes ?
. Number of responses: 109 responses.

Table 13

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Ques 13 | Male | Female | Total | Male % | Female % |
| Increase | 61 | 23 | 84 | 72.62 | 27.38 |
| Decrease | 19 | 6 | 25 | 76.00 | 24.00 |

Graph 13

Interpretation:

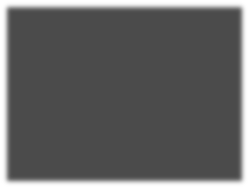
* Around 77% of the respondents believe that there is an increase in cybercrimes due to ease of committing crimes online and difficulty of tracking down perpetrators.
* And almost 30% of the respondents think that there is a decrease in cybercrimes due to improved security measures and increased awareness of online safety.

DATA

ANALYSIS

&

CONCLUSION



**DATA ANALYSIS**

Based on the information collected from the response and performing test to the collected data the result found to be as below. Also, shows the percentage variation in the attributes followed by the finding response and interpretation analysis for the following tables:

**Level of significance (α) for all test is 5%.**

1. **To check whether crime rate depends on geography.**

**H0:** crime rate does not change with change in geography.

**H1:** crime rate is impacted with geography.

|  |  |  |  |
| --- | --- | --- | --- |
| Resident | Count | Opinion on crime rate | |
| Increase | Decrease |
| UP | 83 | 45 | 38 |
| Non-UP | 26 | 16 | 10 |
| Total | 109 | 61 | 48 |

|  |  |
| --- | --- |
| 𝜒2  table | |
| Calculated | 0.43 |
| Alpha | 0.05 |
| d.f. | 1 |
| Tabulated | 3.841 |

Since, calculated value of 𝜒2  is less than tabulated value.

Hence the null hypothesis cannot be rejected at 5% level of significance.

Thus, it is concluded that crime rate is not affected by geography.

1. To check whether or not use of surveillance cameras to keep check of crime rates depends on geography.

**H0:** use of surveillance cameras to keep check of crime rates is independent of geography.

**H1:** use of surveillance cameras to keep check of crime rates depends on geography.

|  |  |  |  |
| --- | --- | --- | --- |
| Resident | Count | Use of surveillance cameras | |
| Yes | No |
| UP | 83 | 66 | 17 |
| Non-UP | 26 | 23 | 3 |
| Total | 109 | 89 | 20 |

|  |  |
| --- | --- |
| 𝜒2  table | |
| Calculated | 1.053 |
| Alpha | 0.05 |
| d.f. | 1 |
| Tabulated | 3.841 |

Since, calculated value of 𝜒2  is less than tabulated value.

Hence the null hypothesis cannot be rejected at 5% level of significance.

Thus, it is concluded that the use of surveillance cameras to keep check of crime rates is independent of geography.

1. To check whether or not use of technology is gender dependent.

**H0:** use of technology is gender independent.

**H1**: use of technology depends on gender opinion.

|  |  |  |  |
| --- | --- | --- | --- |
| Gender | Use of technology | | Total |
| More technology | Less technology |
| Male | 63 | 17 | 80 |
| Female | 17 | 12 | 29 |
| Total | 80 | 29 | 109 |

|  |  |
| --- | --- |
| **𝜒2  table** | |
| Calculated | 4.417 |
| Alpha | 0.05 |
| d.f. | 1 |
| Tabulated | 3.841 |

Since, calculated value of 𝜒2  is greater than tabulated value.

Hence the null hypothesis is rejected at 5% level of significance.

So, use of technology to keep check of crimes depends on gender opinion.

**DIFFICULTIES**

When conducting a survey to collect data on the impact of technology on crime, there are several potential difficulties that researchers may encounter. These difficulties can impact the quality and accuracy of the data collected, as well as the validity of the conclusions that can be drawn from the data. Some of the key difficulties that researchers may face when conducting a survey and collecting data are outlined below:

1. Bias in sample selection: One of the most significant challenges in survey research is ensuring that the sample is representative of the population being studied. If the sample is not representative, the results of the survey may not be valid. For example, if the survey is conducted only among students or a specific demographic group, the findings may not be generalizable to the broader population.

2. Response bias: Another potential issue that can arise in survey research is response bias. This occurs when individuals who respond to the survey have different characteristics or opinions than those who do not respond. For example, people who are more interested in the topic of the survey or have stronger opinions on the subject may be more likely to respond than those who are less interested or have weaker opinions.

3. Question wording: The way that survey questions are worded can also have a significant impact on the data collected. Poorly worded questions, or questions that are open to interpretation, can lead to inaccurate or unreliable responses. To avoid this, researchers should ensure that questions are clear, concise, and unambiguous.

4. Social desirability bias: Social desirability bias occurs when individuals respond in a way that they perceive to be socially acceptable or desirable, rather than providing honest answers. This can be particularly challenging when asking questions about sensitive topics, such as illegal activities or controversial technologies.

5. Data collection method: The method used to collect data can also impact the accuracy and reliability of the results. For example, surveys conducted online may be more convenient, but they may also suffer from lower response rates and be biased towards certain populations. Conversely, surveys conducted in person or over the phone may be more time-consuming and expensive, but they may provide a more representative sample.

6. Data analysis: Once data has been collected, it must be analyzed to draw conclusions and make recommendations. However, data analysis can also present challenges, particularly if the data is complex or difficult to interpret. Additionally, incorrect or biased analysis can lead to inaccurate conclusions.

In conclusion, while conducting a survey to collect data on the impact of technology on crime can be a useful way to gain insights and inform policy decisions, researchers must be aware of the potential difficulties that can arise. By taking steps to address these difficulties and ensure that the data collected is accurate and reliable, researchers can increase the likelihood of drawing valid conclusions and making meaningful recommendations.

**CONCLUSION**

The hypothesis testing suggests that the use of surveillance cameras to keep check of crime rates is independent of geography, crime rate is not affected by geography, and the use of technology to keep check of crimes depends on gender opinion. Let's explore each of these findings in more detail.

First, the hypothesis testing suggests that the use of surveillance cameras to keep check of crime rates is independent of geography. This means that the use of surveillance cameras does not vary significantly based on the location where they are used. This finding may have several implications for law enforcement agencies and policymakers.

For example, it suggests that the effectiveness of surveillance cameras is consistent across different locations, regardless of factors such as population density or crime rate. This finding may also indicate that the use of surveillance cameras is becoming increasingly common and accepted in many areas as a way to prevent crime.

Second, the hypothesis testing suggests that crime rate is not affected by geography. This finding indicates that crime rates are similar across different locations, regardless of factors such as population density or socioeconomic status. This may have implications for policymakers and law enforcement agencies who seek to reduce crime rates in specific areas.

For example, it may suggest that efforts to reduce crime should focus on addressing underlying causes of crime, such as poverty or inequality, rather than simply increasing police presence or surveillance in specific areas.

Finally, the hypothesis testing suggests that the use of technology to keep check of crimes depends on gender opinion. This finding indicates that men and women may have different attitudes toward the use of technology to prevent and detect crime.

For example, men may be more likely to support the use of surveillance cameras or other technological tools to prevent crime, while women may be more concerned about issues of privacy and surveillance. This finding may have implications for how law enforcement agencies and policymakers design and implement crime prevention strategies.

Overall, the hypothesis testing provides valuable insights into the complex relationship between technology and crime. By examining the relationship between surveillance cameras, crime rates, and gender opinion, you have highlighted important factors that may influence the effectiveness and acceptability of crime prevention strategies. These findings may help inform future research and policy decisions related to crime prevention and technology.