

# CODEBOOK FOR SOCIAL NETWORK ANALYSIS (SNA)

The Common Operational Research Environment (CORE) Lab within the Naval Postgraduate School's (NPS) Defense Analysis (DA) department developed this codebook with the support of various law enforcement agencies.<sup>1</sup> The Department of Defense's (DOD) Domestic Preparedness Support Initiative (DPSI), in partnership with The Combatting Terrorism Technical Support Office (CTTSO), sponsored its development. The purpose of this document is to establish a macro-level codebook for law enforcement practitioners using social network analysis (SNA), and to facilitate the sharing of quality, consistent data. The relational and non-relational categories will also improve consistency for other types of data collection and analysis.<sup>2</sup> Permission to use this draft codebook, or the following definitions, is only granted with CORE Lab approval.

**Please use the following questions to guide your use of this codebook during relational data collection and input. Simply click "Yes" next to the question to see specific definitions. You can also use the index on the next two pages to navigate directly to specific relationship or attribute categories.**

## Person-to-Person Relationships

1. Is it a criminal-related (or suspected) relationship? Yes
2. Is it a non-criminal-related relationship? Yes
3. Is there is a victim involved or a feud between two or more individuals? Yes
4. Is the relationship something else or it is unclear? Yes

## Person-to-Event Relationships

1. Is a person involved in an event? Yes

## Person-to-Location or Material Relationships

1. Is a person associated or linked to evidence or a location? Yes

## Person-to-Organization Relationships

1. Do you want to connect or associate a person with an organization? Yes

## Online/Social Media Relationships

1. Is it an online, social media relationship? Yes

## Attributes

1. Is the information regarding characteristics (physical or otherwise) of an individual? Yes

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<sup>1</sup> The CORE Lab would like to thank several law enforcement agencies that contributed to the development of this codebook including the following: Florida Highway Patrol (FHP); Camden County Prosecutor's Office; Las Vegas Metro Police Department (LVMPD); Department of Homeland Security – ICE (Homeland Security Investigations – San Jose); Dr. Andrew Fox (University of Missouri-Kansas City); Kansas City Police Department (KCPD); and the Pasco Sheriff's Office.

<sup>2</sup> The CORE Lab will refine and update this codebook as necessary.

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## Section 1: Relationships

This section outlines and defines relationships between nodes or actors. The majority of the relationships are defined for analyses at the individual-level; however, users should follow the same definitions for analyses at the organizational-level (i.e., organization-to-organization ties). Also note this section states the direction (or lack of direction) and the mode of each relationship type (i.e., one-mode/person-to-person, or two-mode (person-to-organization, person-to-event, person-to-evidence, etc.)).

### Person-to-Person (i.e., One-Mode) Criminal (or Suspected) Relationship Categories

1. **Cellmate of** (person-to-person) – Defined as a relationship in which two or more individuals are incarcerated or detained with one another regardless of the nature of their crimes.
2. **Communication** (person-to-person) - Defined as direct, in-person relaying of messages or information between individuals or through some sort of medium, such as a cellular telephone or email. This option does not include interactions between two or more individuals on social media (click here for social media-based relations).
3. **Criminal Associate of** (person-to-person) - Defined as two individuals who directly collaborate, assist, or participate with each other in illicit activities, including offline and online criminal actions, such as sharing substances and/or transferring illegal material (e.g., child pornography). Co-arrest data would indicate this type of relationship.
4. **Friendship** (person-to-person) - Defined as two individuals who are *explicitly* stated as friends, or who are explicitly known as trusted confidants, in reports or in intelligence documentation. Instances of self-identifiable familial relationships in which two or more people consider themselves family, but who are not related by blood, marriage, or adoption, is also considered an example of this type of relationship.
5. **Financial** (person-to-person) – Defined as two actors, in reporting or intelligence, who are explicitly stated as transferring funds between one another for any purpose, legal or illegal. This relationship, however, does NOT include normal employer-employee compensation.
6. **Recruiter of** (person-to-person) - Defined as contact between two individuals for the purpose of enlisting new members for criminal-related activities.
7. **Superior-Subordinate Relations (Criminal)** (person-to-person) - Defined as relationships between immediate superiors and subordinates in a criminal organization. This relationship accounts for formal/hierarchical ties within illegitimate organizations (click here for a definition of illegitimate organizations).

## Person-to-Person (i.e., One-Mode) Non-Criminal Relationship Categories

1. **Classmates** (person-to-person) - Two people who attend, as students, the same academic institution, *at the same time*. An academic institution is defined as any institution dedicated to providing education. Examples can include, but are not limited to, training courses, elementary schools, middle schools, high schools, and colleges and universities.
2. **Communication** (person-to-person) - Defined as direct, in-person relaying of messages or information between individuals or through some sort of medium, such as a cellular telephone or email. This option does not include interactions between two or more individuals on social media (click here for social media-based relations).
3. **Friendship** (person-to-person) - Defined as two individuals who are *explicitly* stated as friends, or who are explicitly known as trusted confidants, in reports or in intelligence documentation. Instances of self-identifiable familial relationships in which two or more people consider themselves family, but who are not related by blood, marriage, or adoption, is also considered an example of this type of relationship.
4. **Financial** (person-to-person) - Defined as two actors, in reporting or intelligence, who are explicitly stated as transferring funds between one another for any purpose, legal or illegal. This relationship, however, does NOT include normal employer-employee compensation.
5. **Familial** (person-to-person) - Defined as any family connection through blood, adoption, or marriage. Examples include, but are not limited to, children, parents, siblings, mother and father-in-laws, uncles, aunts, and grandparents.
6. **Romance** (person-to-person) - Defined as an affectionate, romantically-involved relationship between two or more individuals. Examples of this category includes non-marital relationships, such as one in which two individuals have a child (or children) together, who are involved in sexual relations with one another, and those who are dating or courting each other.
7. **Superior-Subordinate Relations (Non-Criminal)** (person-to-person) - Defined as relationships between immediate superiors and subordinates in a non-criminal organization. This relationship accounts for formal/hierarchical ties within legitimate organizations.

### Person-to-Person (i.e., One-Mode) Negative Relationship Categories

1. **Indentured to** (person-to-person) - A relationship in which one person is bound by contract, intimidation, or force, to another individual for labor or financial gain. Examples include, but are not limited to, human trafficking and the sex trade.
2. **Victim/Offender** (person-to-person) - Defined as a negative relationship in which one actor (i.e., offender) perpetrates a crime or negative action against another (i.e., victim). *Note this option should be used for scenarios in which the specific criminal event is unclear. Use "Event/Criminal," for cases in which the specific event (e.g., "7 July 2015 Shooting in Monterey") is known* (click here to view definition).
3. **Violent Feud with** (person-to-person) - Defined as a relationship between two or more actors in which there is prolonged, mutual hostility that is often characterized by violence against one another.

### Person-to-Person (i.e., One-Mode) Vague or Uncertain Relationship Categories

1. **Non-Criminal Associates** (person-to-person) - Defined as two or more individuals who are listed, cited, or otherwise mentioned in a police report or other source of reporting, where the nature of the relationship is unclear but the two were at the same place, at the same time. In other words, this relationship does not meet the definition of any other relational category outlined in this codebook and should be used for unspecified relationships.

### Person-to-Event (i.e., Two-Mode) Relationship Categories

1. **Criminal Event** (person-to-event) - Defined as a person's participation in (witting or unwitting), or witness of, an event, meeting, occurrence, or incident in which the purpose, goals, or outcome (s) of the event related to, or resulted in, criminal activities. This definition includes individuals who are witnesses, perpetrators, co-arrestees, and victims of criminal incidents. Examples can include, but are not limited to, violent crimes, formal/informal meetings, and training events that *are* related to or resulted in criminal activities.
2. **Non-Criminal Event** (person-to-event) - Defined as a person's participation in (witting or unwitting) an event, meeting, occurrence, or incident in which the purpose, goals, or outcome (s) of the event did not relate to criminal activities. Examples can include, but are not limited to, social gatherings, formal/informal meetings, community events, and training events that are *not* related to criminal activities.

## Person-to-Location or Material (i.e., Two-Mode) Relationship Categories

1. **Evidence** – (person-to-evidence) - Defined as an individual’s physical relationship with or direct association to a piece of criminal evidence, such as individual’s possession or control of narcotics, weapons, documents, etc.
2. **Residence** (person-to-house) - Defined as an individual’s ownership, rental, or visitation of a house, an apartment, a condo, a flat, a safe-house, or any other type of residence. This option can also include ownership, rental, and visitation of residences in the past.

## Person-to-Organization (i.e., Two-Mode) Relationship Categories

1. **Affiliation with *Illegitimate* Organizations** (person-to-organization) – Defined as an individual’s ownership of, employment for, and/or membership in an *illegitimate* organization. An *illegitimate* organization is defined as a group or organization whose goals are nefarious (i.e., criminal) in nature, or who willingly attains material and/or non-material resources through criminal activity. Examples include, but are not limited to the following: gangs, cartels, terrorist organizations, and organizations involved in the sex trade or prostitution. *Note this also can be recorded as an attribute (click here for attributes).*
2. **Affiliation with *Legitimate* Organizations** (person-to-organization) - Defined as an individual’s ownership of, employment for, and/or membership in a *legitimate* organization. A *legitimate* organization is defined as one that refrains from participating, supporting, or otherwise being involved in criminal activity. Examples include, but are not limited to the following organizations: community organizations (e.g., YMCA, neighborhood associations), for-profit (e.g., commercial entities), non-profit organizations (e.g., non-governmental organizations), political organizations (e.g., parties, advocacy groups, and interest groups), religious organizations (e.g., churches, mosques, synagogues, and religious study circles), and academic institutions (e.g., schools, universities). *Note any of these examples, if willingly involved in criminal activities, should be coded as an illegitimate organization (click here for definition). Note this also can be recorded as an attribute (click here for Attributes).*

## Online/Social Media Relationships

1. **Social Media Connection** (user account-to-user account) - Defined as a relationship where two individuals can be directly connected through “following” and/or friendship on any social media platform, including friends on Facebook, followers on Twitter, followers on Instagram, etc. The ways that two individuals can be linked via social media platforms largely depends on the content and platform at hand.
2. **Social Media Communication** (user account-to-user account) - Defined as a relationship where two individuals send, post, or directly interact with another on any social media platform. This option accounts for the interactive element that occurs between users and it highlights potentially stronger relationships beyond basic connections recorded in the “Social Media Connection” option. For example, this definition would cover two Facebook friends who post messages to each other.

## Section 2: Attributes<sup>3</sup>

This section outlines and defines attributes (i.e., characteristics) of actors. Note it also states the coding scale for each category.

1. **Affiliation with *Illegitimate* Organizations** – Defined as an individual’s ownership of, employment for, and/or membership in an *illegitimate* organization. An *illegitimate* organization is defined as a group or organization whose goals are nefarious (i.e., criminal) in nature, or who willingly attains material and/or non-material resources through criminal activity. Examples include, but are not limited to the following: gangs, cartels, terrorist organizations, and organizations involved in the sex trade or prostitution.

Coding Scale (List Formal Name of Organization (s))

2. **Affiliation with *Legitimate* Organizations** - Defined as an individual’s ownership of, employment for, and/or membership in a *legitimate* organization. A *legitimate* organization is defined as one that refrains from participating, supporting, or otherwise being involved in criminal activity. Examples include, but are not limited to the following organizations: community organizations (e.g., YMCA, neighborhood associations), for-profit (e.g., commercial entities), non-profit organizations (e.g., non-governmental organizations), political organizations (e.g., parties, advocacy groups, and interest groups), religious organizations (e.g., churches, mosques, synagogues, and religious study circles), and academic institutions (e.g., schools, universities). *Note any of these examples, if willingly involved in criminal activities, should be coded as an illegitimate organization.*

Coding Scale (List Formal Name of Organization (s))

3. **Address (Current)** – The specific location (s) at which an individual resides (Use # 12 “Locations” for locations in which an individual does NOT reside).

Coding Scale (List Address (-es))

4. **Also Known As (AKA/Alias)** - An alternative by which an individual is known.

Coding Scale (List Name (s))

5. **Citizenship Status** – The legal status of an actor’s citizenship.

Coding Scale (U.S. Citizen (natural born or naturalized), Non-U.S. Citizen)

6. **Crime Type** – Defined as the nature and type of crime in which an individual is involved, or has been involved in the past. Examples include crimes related to drugs, weapons, violent crime, arson, larceny, theft, etc. The coding scale below is based on the National Incident Based Reporting System (NIBRS) <https://www.fbi.gov/about-us/cjis/ucr/nibrs>.

Coding Scale (List Type(s))

- a) Arson
- b) Assault Offenses
- c) Bribery
- d) Burglary/ Breaking & Entering

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<sup>3</sup> This codebook, specifically Section 2: Attributes, does not include some of the more obvious categories (e.g., hair and eye color) for at least two reasons. The first is to limit the number of categories and definitions through which analysts and data collectors have to sort. Second, these categories, however useful they may be in many cases, are not particularly useful for social network analysis. Those types of categories, of course, still can be recorded in a data management software program.

- e) Counterfeiting/Forgery
  - f) Destruction/Damage/Vandalism
  - g) Drug/Narcotic Offenses
  - h) Embezzlement
  - i) Extortion/Blackmail
  - j) Fraud Offenses
  - k) Gambling Offenses
  - l) Homicide Offenses
  - m) Kidnapping/Abduction
  - n) Larceny/Theft Offenses
  - o) Motor Vehicle Theft
  - p) Pornography/Obscene Material
  - q) Prostitution Offenses
  - r) Robbery
  - s) Sex Offenses, Forcible
  - t) Sex Offenses, Non Forcible
  - u) Stolen Property Offenses
  - v) Weapon Law Violations
7. **Drug/Substance Abuse** – Defined as an individual’s pattern of drug use in which the user consumes in amounts, or with methods, that are harmful to themselves or to others.  
Coding Scale (Yes or No)
8. **Race/Ethnicity** – Defined as the racial or ethnic group with which the individual identifies. An ethnic group is a social group to which a person belongs and that shares a common and distinctive culture, religion, or language. Examples include White, African American, American Indian, Asian American, or Native Hawaiian or Other Pacific Islander, Hispanic/Latino (Please refer to United States Census for definitions).  
Coding Scale (List Racial or Ethnic Category)
9. **Homelessness** – Defined as an individual who is without regular dwelling.  
Coding Scale (Yes or No)
10. **Ideology/ Belief** – Defined as an individual’s system of ideas and beliefs, including political and economic beliefs.  
Coding Scale (List Ideology (-ies))
11. **Informant Status** – Defined as an individual who provides information against other individuals for compensation, including informers for law enforcement or other government bodies.  
Coding Scale (Yes or No)
12. **Locations** - An individual’s regular travel routes, or locations in which the individual’s DNA has been found. Please include the most micro location as possible; for example, list “235 Fremont Street, Monterey, California” as opposed to “California” (see “Address (Current)” for locations in which an individual resides; click here for that option).

Coding Scale (List Name of Location (s))

13. **Scars, Marks, Tattoos, and Oddities (SMTOs)** – Defined as distinguishing characteristics that support the identification of an individual.  
Coding Scale (List Scars, Marks, Tattoos or Oddities)
14. **Medical/Psychological Conditions** – Defined as an individual’s known, and relevant, medical (physical) and/or psychological conditions.  
Coding Scale (List Physical and/or Psychological Condition (s))
15. **Occupation** - Defined as an individual’s current functional title of employment.  
Coding Scale (List Occupation (s))
16. **Prior Arrest** – Defined as an offense for which the individual has been arrested.  
Coding Scale (List Offense(s))
17. **Probation or Parole** – Defined as the individual’s probation or parole status.  
Coding Scale (Yes or No)
18. **Role** - Defined as a role an individual assumes in a legitimate or illegitimate organization. Data coders can record several roles given most actors hold more than one role.  
Coding Scale (List Role (s))
19. **Runaway** – Defined as the individual’s status as a runaway. A runaway is defined as a minor who has left home without permission for an extended period of time.  
Coding Scale (Yes or No)
20. **Skills (Technological)** – Defined as special abilities related to technology, regardless of domain or field, that one possesses (e.g., computer hacking).  
Coding Scale (List Technological Skill (s))
21. **Skills (Non-Technological)** – Defined as special abilities NOT related to technology, regardless of domain or field, that one possesses (e.g., people skills).  
Coding Scale (List Non-Technological Skill (s))
22. **Status** - Defined as the physical condition of the individual. The default is “Alive and Free” if there is a lack of information, or an actor’s physical status is “unknown.”  
Coding Scale (List Status)
  - a. Alive and Free
  - b. Alive and Warrant Issued
  - c. Incarcerated/Detained
  - d. Dead
23. **Social Media Accounts** - The user account names of an individual on a social media platform, such as Twitter or Facebook. For purposes of this codebook, the social media data of an individual will be limited to the individual’s user account name (s) for each social media platform on which they participate.  
Coding Scale (List Name of Account (s))

24. **Types of Currency** - Defined as a type of currency that an individual uses to facilitate or execute a crime, including illegal and suspected illegal financial transactions. Examples include, but are not limited to, gift cards, foreign currency, domestic current, and bitcoin.

Coding Scale (List Type (s) of Currency))

25. **Warrant** – Defined as the presence or establishment of a specific type of authorization (i.e., warrant) issued for the purpose of detaining or arresting the individual.

Coding Scale (Yes or No)

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