Genetic Genealogy is an emergent technology combining genetic analysis with traditional research that helps build family trees and study familial history. The first use of GG was seen in 1989 when the Dallas Morning News discussed applying gene-reading technology to trace human ancestry, and subsequently benefited surname projects. It has then been broadly utilized in biotechnology, history, anthropology, and agriculture. Although the development of genetic genealogy technology had been taking place in academia for over a century, it wasn't until 2000 when the first private company offered genetic genealogy tests to the public that it became of commercial interest. More recently, individual DNA distinctiveness plays a pivotal role in forensics, aiding criminal identification and establishing parentage. The Defense Department also anticipates GG to contribute hugely to identifying World War II soldiers.

Three sources of information in a DNA sample are generally extracted for genealogical testing: autosomal DNA (atDNA), Mitochondrial DNA (mtDNA), and Y-chromosome DNA; each benefit in different ways. The Federal Bureau of Investigation (FBI) managed the Combined DNA Index System (CODIS), storing forensic DNA samples collected from crime scenes, missing persons, and staff, to enhance investigation efficiency in cold-case violent crimes. While privately housed genetic genealogy databases grow in numbers and in data stored, the FBI has started to collaborate with these external resources to lead criminal investigations. The Golden State Killer Case was a notorious example.

With the joining of direct-to-customer (DTC) genetic genealogy platforms, agencies have taken actions to accommodate its involvement in the justice system, including the DOJ interim policy and state statutes from Maryland and Montana. The public has also become aware of the protection of privacy concerning GG's use in the forensic process. The debate between public safety and voluntary private interests, the accuracy of arrests, and the ethical basis for data linking arises from the fact that past investigations may affect investigative efficiency and may result in unequal rates of incarceration for underrepresented groups.