

How to Understand the Difference Between Confidentiality and Anonymity

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Confidentiality and anonymity are two important concepts that are often used interchangeably, but they have distinct meanings. Confidentiality refers to the protection of sensitive information from being accessed or disclosed to unauthorized individuals. It is typically achieved through measures such as encryption, secured storage, and restricted access. On the other hand, anonymity refers to the state of being unknown or unidentifiable. It is often used to protect the identity of individuals or entities, particularly in situations where they may face harm or discrimination if their identity is revealed. Anonymity can be achieved through methods such as using pseudonyms or masking personal information. In summary, confidentiality focuses on safeguarding information, while anonymity focuses on protecting identities.

Confidentiality vs Anonymity: What's the Difference?

When researchers use surveys to collect data from individuals, they often say that the survey will be conducted confidentially or anonymously. These two terms are often confused by individuals, but the distinction between them is important.

Collecting Data Confidentially

When data is collected confidentially, researchers are able to identify individual subjects and their specific responses. Typically researchers will assign a number or some code to each individual so that they're able to be identified.

Once survey data is collected, there are several ways to ensure that it is protected and remains confidential including:

Using physical safeguards to protect the data such as locked cabinets, secluded interview rooms, private offices, password-protected data centers, etc. Allowing as few individuals as possible to be able to access the data to prevent the possibility that anyone leaks the information on accident. Using computer passwords, anti-virus software, firewalls, and encryption to ensure that any digitally-stored data cannot be accessed by anyone without permission.

When the findings of a survey are reported, the total data should be aggregated together so that the responses of any particular individual cannot be known. For example, a study may say that "40% of individuals said they felt confident in their negotiation skills" rather than saying something like "individuals with the last names of Smith, Anderson, Miller, and Hovak said they felt confident in their negotiation skills."

All statistics and figures shared in the findings of a study should be stated at the group level, not the individual level.

Collecting Data Anonymously

When data is collected anonymously, researchers are not able to identify individual subjects and their specific responses. That is, only the individuals themselves know they participated in the study and only they know their specific responses.

When data is collected in this manner, individuals are de-identified and there are no codes assigned to individuals so it's impossible to link any specific responses to certain individuals.

This means that no information about specific individuals is collected such as address, name, phone number, social security number, or any other information that would make it possible to tie an individual to their survey responses.

Confidentiality vs. Anonymity

It's important to note that a research study cannot collect data *both* confidentially and anonymously.

For example, if researchers invite individuals to answer survey questions in a private room in person, then obviously the data won't be anonymous since the researchers know which individuals provided which

responses. In this case, they must ensure that the survey data is confidentially collected and stored.

On the other hand, if individuals complete a survey online anonymously, there's no need to store the data confidentially because there are no unique identifying characteristics that could tie survey responses to specific individuals. In this case, researchers simply need to ensure that when they share the data that it's aggregated and reported at the group level.

For data that is collected through online surveys, researchers also need to make sure that it's not possible to identify the specific IP Address that survey responses came from, otherwise it will be possible to identify which individuals at specific IP addresses provided which responses. This would violate the anonymity of the individuals.

The Importance of Informing Individuals