

Sandboxes promise to solve many software security challenges, but why aren't they adopted more extensively?

METHODS

We systematically analyze the sandboxing landscape to (a) **identify challenges** holding it back and (b) **resolve ambiguities** in the definition of "sandbox".



QUESTIONS

Establish research questions to focus analysis efforts.



CRITERIA

Set criteria to determine what types of data can answer the questions.



DATASET

Searched 5 top security conferences for sandboxing papers matching the inclusion criteria.



SUMMARIES

Summarize the data in each paper using codes iteratively derived from the dataset



ANALYSIS

Use statistical clustering & graphical analysis to compare definitions & communities.

DEFINITION

sandbox (*n.*)

An encapsulation mechanism that is used to impose a security policy on software components.

CHALLENGES

USABILITY

Sandboxes are hard to use and people use them incorrectly, reducing their benefits. Sandbox researchers largely ignore usability.

AD HOC

Researchers often rely on ad hoc arguments to validate scientific claims about their