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5 Ways to Uncover Sensitive Patient Information from Unstructured Healthcare Data

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Introduction

About 80% of all data in healthcare — including sensitive, regulated patient data — is from unstructured sources.

Unstructured health data is remarkably difficult to find, classify, map, and manage using traditional discovery and classification techniques and technologies.

Even healthcare companies that put their efforts behind digital transformation by modernizing their health information technology systems, adopting electronic health records (EHRs), and driving interoperability efforts now sit on mountains of unstructured data that cannot be easily located, organized, processed, or utilized using structured formats.

Unstructured Health Data Commonly Includes:

- Handwritten practitioner notes
- Video files
- Biosignal data
- Medical imaging data
- Audio files
- Social media data
- and more
- Existing or legacy records
- Unstructured metadata
- Streaming data

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Here are 5 ways BigID applies the structure that healthcare organizations need for unstructured data — making it accessible, actionable, and valuable.

1. Hyperscan

CHALLENGE: Discover Massive
Volumes of Medical Data

- ◆ Health data that resides in unstructured sources is high-volume, resource-heavy, difficult to classify at scale, slow to achieve results, and almost impossible to manage.

- ◆ Traditional methods of scanning enterprise data can take months or even years. Healthcare organizations need a plan to discover and map unstructured data for compliance, privacy, remediation, access governance, cloud migration, minimization, and retention.

SOLUTION: Reduce Scan Time
for Unstructured Data by 95%

- ◆ Hyperscan — BigID's intelligent scanning capability — drastically expedites the classification, cataloging, and correlation of sensitive health data in high-volume unstructured file stores.

- ◆ BigID reduces the overall scan time required for data discovery by automatically identifying hotspots of sensitive patient data. The outcome is dramatically faster, deeper, and more accurate data discovery across your entire data landscape.

2. Artificial Intelligence and Machine Learning

CHALLENGE: Read Medical
Imaging Data

- ◆ Massive volumes of data collected by x-ray, CAT, MRI, ultrasound, and medical imaging machines can't be easily analyzed or cataloged by traditional discovery and classification tools.

- ◆ This type of unstructured patient data also requires correlation with past procedures, patient histories, and other data.

SOLUTION: Leverage AI- and
ML-Driven Automation

- ◆ Healthcare organizations must be able to leverage automated tools and machine-learning algorithms that can recognize and learn from patterns in images.

- ◆ BigID's next-generation classification leverages machine learning that's based on NLP and NER — as well as AI insight that's based on deep learning to look beyond basic types of data and find sensitive and regulated health data at scale.

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3. Correlation and Graph Technology

CHALLENGE: Add Context to Classification

- Once sensitive and regulated patient data from unstructured sources is identified, it requires context so health professionals can surface relationships between data points, associate whose data it is, build identity profiles, and visualize how data is interconnected across data sources.

SOLUTION: Correlate Granular Data Knowledge to Data Subjects

- BigID enables healthcare organizations to automatically identify variations of highly sensitive, restricted, and uniquely identifiable data — accurately, at scale, and across the entire data landscape.

- Get fewer false positives and discover more data, accurately, with ML graph technology. See all of your interconnected data attributes across data sources. Find relationships between data points and infer new personal and sensitive data attributes — all in one place.

4. Effective Interoperability Capabilities

CHALLENGE: Exchange and Interpret Data

- When it comes to driving the effective sharing of data, healthcare organizations struggle to achieve organizational and stakeholder consensus, ensure that patient consent records are accurate and up-to-date, uphold privacy and security standards, and mitigate harmful and high-risk data quality concerns.

SOLUTION: Drive Interoperability Efforts with Meaningful Data Exchange

- BigID offers an API-first platform that ensures simple, high-impact integration and orchestration with other enterprise infrastructure. It helps to manage, monitor, and validate third-party data transfers to comply with regulatory requirements.

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5. Data Minimization

CHALLENGE: Minimize Duplicate and Redundant Data

- Healthcare organizations have an IT vendor technology landscape that is influenced by mergers, acquisitions, and disparate and conflicting development processes.

- After a merger, for example, data that was once critical can become a liability. Duplicate and redundant data amplifies the risk of data breaches, complicates and compromises cloud migration strategies, and often violates privacy and security regulations.

SOLUTION: Clean Up Your Data and Minimize Risk

- Identify and remediate duplicate, similar, redundant, and derivative unstructured data that contains sensitive patient data — and enact policy-driven retention management.

- BigID enables healthcare organizations to manage security, privacy, and governance remediation at scale. Not all data requires the same action, and empower your team with multiple remediation options. Delegate data decisions to the right people — in the right way.

With BigID, healthcare organizations can get full visibility into — and complete coverage of — their sensitive, regulated, and high-risk unstructured data.

Schedule a demo to learn how to proactively protect all your patient data across the data landscape — from legacy stores to cloud environments.