

NCTA AND ATP PRESENT



Assessment Industry Standards and Best Practices for the Online Observation of Tests



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Forward

The Association of Test Publishers (ATP) and the National College Testing Association (NCTA) represent two leading organizations dedicated to the advancement and study of testing and assessment. In August 2015, the ATP and the NCTA collaborated to develop a set of Proctoring Best Practices, a guide that identified best practices in Test proctoring, with a focus on proctor responsibilities. As test delivery and administration have grown increasingly complex due to the availability of innovative and fast-evolving new technologies, both organizations recognized the need for more defined industry standards addressing the online observation of tests and encompassing roles beyond that of the proctor, including that of the test sponsor and online observation vendor.

In 2018, the ATP and the NCTA co-sponsored a Joint Technical Working Group (TWG) composed of members of both organizations to research and develop a consensus-based set of standards and best practices for the online observation of tests. To structure and support the effort to develop these materials, the ATP and the NCTA jointly established and approved a development process that was modeled after the American National Standards Institute's (ANSI) protocols and procedures for standard development, such as the *ANSI Essential Requirements: Due process requirements for American National Standards*.

The ATP-NCTA Assessment Industry Standards and Best Practices for Online Observation of Tests ("Standards and Best Practices") provides consensus-based requirements and considerations for the online observation of tests, with or without a proctor. It includes current thinking regarding fast moving technologies, such as artificial intelligence, biometrics, and advanced algorithms, and evolving regulations such as those concerning privacy and accessibility.

Note from the Co-Chairs

Development of the Standards and Best Practices occurred during a time of rapid change in the assessment industry and across the globe, changes that were compounded by the global upheaval wrought by the COVID-19 pandemic. The rapid expansion of online monitoring as a response to the pandemic allowed students, learners, trainees, and employees to continue to fulfill their educational and professional goals, despite being unable to have consistent access to physical test facilities. During this time, significant learnings emerged regarding online observation. As a result, throughout the development of the Standards and Best Practices, the scope and definitions changed several times. Even with the intent to incorporate the most current requirements, recommendations, guidelines, and best practices possible, we have no doubt that the information in this version of the document will need to be re-evaluated and updated periodically. Such is the pace of change in learning and assessment technologies today.

The co-chairs wish to thank the prior launch and interim co-chairs for the support, energy, and expertise they provided to this project. We also thank the ATP and the NCTA leadership for their vision in continuing to support this work. Finally, we wish to thank the many volunteers from various testing programs and vendors around the world who provided the countless hours of drafting and reviewing needed to create this document. Without these dedicated professionals, who volunteered personal time both before and during the pandemic, this work would not have been possible.

It is our hope that the Standards and Best Practices will provide meaningful and practical guidance for individuals in the learning and assessment communities. Together, our communities can make meaningful differences in the lives of learners, employees, employers, and their families. Online test observation provides an additional avenue for individuals to access learning and to demonstrate competences through reliable assessments. We are grateful for the opportunity to be part of a community that seeks to serve others and privileged to co-chair the development of these materials.

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The Standards and Best Practices were developed by and within the ATP and the NCTA (the “Sponsors”) through a consensus development process that brought together volunteers representing varied viewpoints and interests to achieve the final product. The Standards and Best Practices were developed by volunteers with industry-based expertise in a technical working group. Volunteers participated without

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Introduction

These Standards and Best Practices have been developed with the goal of promoting generally accepted requirements and best practices for the online observation of tests. They were widely contributed to and peer reviewed by testing professionals around the world.

These Standards and Best Practices address: (a) the online observation of tests with a proctor, and (b) the online observation of tests without a proctor by using technology-based software tools. Where both human and technology-based software tools are used to observe test administrations, these materials can be used together to effectively operate a hybrid model.

The ATP and the NCTA recognize that the online observation of assessments, while well over a decade old, is still in the relatively early stages of development, with rapid and continuous technological innovation both enhancing and transforming online observation capabilities. Additionally, online observation providers may adjust their products and services on a more accelerated timeline due to the changing technology landscape and advancements in online education and training. Such fast-paced changes can, within a relatively short time frame, impact these Standards and Best Practices. Accordingly, the Standards and Best Practices are written to describe required procedures and outcomes and not to describe or prescribe specific technologies or methodologies to achieve those outcomes.

These Standards and Best Practices may be used by a variety of test sponsors, such as certification or licensure bodies, online observation providers, proctors, and other interested parties. The objective of the Standards and Best Practices is to provide requirements that outline the test sponsor's and online observation provider's responsibilities as well as best practices they can adopt to help ensure the privacy of personal information, test security, and validity of test data resulting from an online observed test. The Sponsors of the Standards recognize that while the nature of individual testing programs is highly variable due to the purposes and contexts for which tests are used, all testing programs generally operate according to broadly similar principles. Therefore, these Standards and Best Practices may be applicable to test administration procedures across a wide variety of programs (e.g., academic admissions, certification, licensure, credentialing, educational course credits, continuing education units) and settings (e.g., professional, educational, employment, clinical). As always, however, the ultimate decision on what observation methods or procedures best suit its tests and testing environment resides solely with the individual test sponsor.

The document is designed to allow individuals or entities interested in a specific observation methodology to obtain complete information regarding that methodology, without requiring cross-references to other sections of the document. Thus, a test sponsor interested in using online proctors for observing a test will find relevant standards, notes, and best practices specific to test sponsors contained in Section A. Similarly, an online observation provider offering services without a proctor will find relevant standards, notes, and best practices specific to the online observation provider set forth in Section B. An entity offering a hybrid model using both human proctors and technology-based observation services will find the relevant information in both Sections A and B. Individuals involved in proctoring, auditing, or launching a test will find relevant standards and information in Section C.

Within these Standards and Best Practices and consistent with ANSI and ISO Directives, the following terminology is used:

- “shall” indicates a requirement;
- “should” indicates a recommendation;
- “may” indicates a permission, and
- “can” indicates a possibility or a capability.

Standards are set forth in grey boxes.

Best practices and notes are included throughout this document and are denoted by an arrow. Best practices will include the “should,” “may,” and “can” terminology.

Scope

The Standards and Best Practices specify requirements and best practices for the online observation of tests. These standards have been organized as follows:

A. Online Observation of Tests with a Proctor

Section 5: Test Sponsor Requirements and Best Practices

Section 6: Online Observation Provider Requirements and Best Practices

B. Online Observation of Tests without a Proctor

Section 7: Test Sponsor Requirements and Best Practices

Section 8: Online Observation Provider Requirements and Best Practices

C. Requirements and Responsibilities for Proctors, Auditors, and Launchers

Section 9: Requirements and Responsibilities for Proctors

Section 10: Requirements and Responsibilities for Auditors

Section 11: Requirements and Responsibilities for Launchers

These Standards and Best Practices do not apply to the software and services for delivering an online Test. While it is possible that the same organization offers software to deliver test content and software to observe the online Test session, these are two distinct activities. Technology-Based Test Delivery Providers, Test Taker management systems, Test Taker registration systems, voucher systems, and credential management platforms are all examples of additional technologies that may impact the Test Taker experience and should be considered as part of the overall testing process but are not addressed in this document.

How to Use this Document

This document is designed so that users can go to a section that defines their role and desired observation method and find a “stand-alone” articulation of the applicable Standards and Best Practices.

For example, a Test Sponsor interested in offering Online Observation of Tests with a Proctor can go directly to Section A to find relevant information. Similarly, an Auditor reviewing services of Test Sessions employing Online Observation of Tests Without a Proctor can go directly to Section C to learn more about an Auditor’s roles and responsibilities in that setting.

The Committee’s goal in designing the document in this way was to avoid numerous cross-references and searching across the document. While creating these as stand-alone sections results in a longer set of standards, the final document is more user-friendly and less confusing for the individual user.

To enhance readability, the document sets forth baseline standards within a grey box. Following certain standards are notes and best practices intended to provide context to the reader. These are distinguished by bullets and include “should,” “may,” and “can” terminology. Taken together, the standards, notes, and best practices provide practical guidance for using online observation methodologies.

The Standards and Best Practices assume that the Online Observation Provider is providing the Online Proctor. In the case that Proctors are contracted directly by the Test Sponsor or that the Online Observation Provider is a subcontractor to a Technology-Based Test Delivery Provider who has contracted directly with the Test Sponsor, the language should be adapted appropriately.

Terms and Definitions

For the purposes of this set of standards, the following apply:

3.1 Artificial Intelligence (AI) or AI systems

Hardware and/or software systems that engage in learning, reasoning, or data modeling to reach outcomes. Artificial intelligence includes machine learning and use of advanced algorithmic software to perform tasks such as visual perception, speech recognition, facial recognition, and voice recognition.

3.2 Auditor

An individual responsible for reviewing Online Observation data following the completion of a Test Session. The Auditor reviews all or portions of completed records, such as video and audio records or Proctor Irregularity reports, of a Test Session.

3.3 Biometric Data

Personal Information resulting from specific technical processing relating to the physical, physiological, or behavioral characteristics of a person that confirm the identity of that person.

3.4 Data Anonymization

The irreversible process of removing Personal Information from data sets, such that the individuals whom the data describe can no longer be identified by any means from the data.

3.5 Data Controller (also referred to as a Controller)

An organization that, alone or jointly with others, determines the purposes and means of the collecting and processing of Personal Information. Examples of Data Controllers can be Test Sponsors, bodies that deliver certification Tests, employers who test job applicants, personnel, or educational institutions testing students.

3.6 Data De-Identification

The processing of Personal Information in such a manner as the Personal Information can no longer be connected to a specific individual without the aid of additional information, provided that such additional information is kept separately and is appropriately secured. This process is synonymous with Pseudonymization of data (defined below).

3.7 Data Processor (also referred to as a Processor)

An organization that processes Personal Information on behalf of the Controller. Examples of a Processor is a company that provides online observation services or that provides a platform for delivery of online tests. A Processor may use Sub-Processors.

3.8 In-Person Proctoring

In-Person Proctoring is a real-time process during which a proctor, who is in the same location as the test taker, observes or supervises a test session to ensure the assessment is administered in accordance with defined rules and procedures.

3.9 Irregularity

A nonstandard or unauthorized event occurring during a Test as defined by the Test Sponsor. Irregularities cover a wide variety of such events, including loss of internet connectivity, power failures, test taker illness, a test taker moving outside of the view of an online observer, an unauthorized individual entering the testing environment, and emergency situations, as well as use of unauthorized testing aids, proxy testing, intellectual property theft, and other security issues.

3.10 Launcher

An individual responsible for launching a Test Taker's exam. A Launcher may also be referred to as a "Greeter" or "Check-in Specialist." The Launcher is typically responsible for authenticating a Test Taker and visually checking the Test Taker's person for unauthorized aids, as well as

evaluating the digital and physical environment, prior to launching the Test. A Launcher is not expected to remain to observe the Test Session in real time. If the individual remains to observe the Test Session, they are defined as a Proctor.¹

3.11 Online Observation of Tests

The process of using technology to monitor a Test session with or without the synchronous assistance or participation of a human serving as a proctor.

3.12 Online Observation of Tests with a Proctor

The process whereby a proctor uses technology to monitor a Test session in real time. For example, the proctor may use internet connectivity, a webcam, and microphone to observe a Test session. The Test session may or may not be recorded. Examples of Online Observation of Tests with a Proctor include:

- Observation of tests by a proctor using technology that may or may not incorporate AI and where both the proctor and the test taker are in the same building but not in the same room.
- Observation of tests by a proctor using technology that may or may not incorporate AI and where the proctor is in a separate building than the test taker.
- Observation of tests using AI or other alerting capabilities, where the proctor receives an alert and thereafter begins real-time observation of the test session using technology. The Test Session may or may not be recorded.

3.13 Online Observation of Tests without a Proctor

The process of using technology to record a Test session, but no individual is observing the session in real time. The record is retained and available for a period of time after the Test session for an Auditor or other individual to review, as needed. Examples of Online Observation of Tests Without a Proctor include:

- Observation of tests using technology to record a Test Session and to make the recording available to a human reviewer after the event;
- Observation of tests using technology, which may or may not include AI, to record a Test Session and identify Irregularities, and to make the record and Irregularity results available to a human reviewer after the event; and
- Observation of tests using technology where a human is initially involved to check-in a test taker to verify identity, set up the testing equipment, or initiate the recording of the test session, and then exits the testing location or test session for the remainder of the event; the record is made available to a human reviewer after the event.

3.14 Online Observation Provider

An entity that provides Online Observation services. The range of Online Observation services provided can vary, including, for example, instances in which the Online Observation Provider:

¹ As technology advances, these processes may be further assisted. For example, use of a generative Artificial Intelligence chatbot could be used in the future to conduct Test Taker authentication and check-in activities.

- provides the full online observation services, including the technology and Online Proctors;
- provides the technology, software and administrative support, but contracts with a separate organization to provide the Online Proctors;
- provides some of the technology, software, administrative support, and Online Proctors although the Test Sponsor may also provide some of the technology and software; or
- provides the technology, software, and administrative support and the Test Sponsor provides the Online Proctors.

3.15 Personal Information

Any information relating to an identified or identifiable natural person. Personal Information may also be referred to as Personally Identifiable Information (“PII”) or Personal Data. In the proctoring context, Personal Information will usually comprise name, demographics, any identification documentation, and video and/or audio recordings. Whether specific data constitutes Personal Information may depend on the statutory or regulatory schema governing the testing situation. Test questions, scoring algorithms, aggregated, and anonymous data that do not identify any one individual are not usually considered to be Personal Information.

3.16 Processing

Processing means any operation performed on Personal Information, including but not limited to collection, recording, storage, retrieval, transmitting, using, or making the Personal Information available.

3.17 Proctor

The authorized individual responsible for observing in real time a Test Session of one or more individual Test Takers. Alternative terms for proctor are invigilator, administrator, observer, room supervisor, remote proctor, online proctor, and e-proctor. A Proctor may monitor either a Technology-Based Test or a paper-based Test. The Proctor may or may not use technology to observe the Test Takers and their environment. In addition, the Proctor may or may not be present in the same room as the Test Taker, and may or may not be required to authenticate the Test Taker and check their digital and physical environment prior to launching a Test.

3.18 Proctoring

Proctoring is a real-time process during which a proctor observes or supervises a test session and intervenes as necessary to ensure the assessment is administered in accordance with defined rules and procedures.

3.19 Pseudonymization

The process whereby personal identifiers are removed from data associated with the persons represented in the data and replaced with artificial identifiers (e.g., token, an alpha-numeric string, or other form of identification), so the data cannot be associated with those persons. A key that links the non-personal identifiers to the persons represented in the data is stored separately from the pseudonymized data so that it can later be used to identify the persons represented in the data, typically after processing of the data is completed. So long as the key is

stored separately, pseudonymization provides enhanced privacy protection because, if pseudonymized data is breached, it cannot be associated with identifiable persons.

3.18 Sensitive Personal Information

Any Personal Information that reveals a person's: (i) social security, driver's license, state identification card, or passport number; (ii) financial account (e.g., debit card/credit card number) in combination with any required security login or access code, password, or credentials allowing access to an account; (iii) precise geolocation; (iv) racial or ethnic origin, religious or philosophical beliefs, or union membership; (v) the contents of mail, email, and text messages unless the data collector is the intended recipient of the communication; (vi) genetic data; (vii) processing of biometric information for the purpose of uniquely identifying the person; (viii) personal information collected and analyzed concerning a consumer's health; (ix) personal information collected and analyzed concerning a person's sex life or sexual orientation; and (x) personal data from a known child.²

3.20 Sub-Processor

A Processor who works on behalf of a Processor rather than directly for the Controller. Examples of Sub-Processors include a data center company providing hosting services to a proctoring service provider or an information technology company providing cloud storage services to a Processor. Sub-Processors can have Sub-Processors.

3.21 Technology-Based Test

Test administered in a digital form using a digital device. Examples of digital devices include a desktop computer, laptop computer, tablet, or mobile phone. A Technology-Based Test may be taken using a device in either stand-alone or networked configuration. During a Technology-Based Test, the Test Taker may access the Test directly via the Internet or through other methods that enable access to the Test without concurrent access to the Internet.

3.22 Technology-Based Test Delivery Provider

An entity that provides the hardware or software to deliver a Technology-Based Test. The Technology-Based Test Delivery Provider may or may not be the same entity as the Online Observation Provider.

3.23 Test

An assessment instrument or tool intended to measure a Test Taker's knowledge, skill, competence, abilities, and/or other attributes by one or more means. The means for measuring may be written, oral, practical, performance-based, or observational, and Test questions may be delivered using verbal, paper-based, or technology-based methods. A Test may also be referred to as an examination, exam, or assessment.

² This definition is based on California and Colorado privacy laws: Cal. Code (§1798.140(ae) under Section 14 of the CCPA as amended) and Colorado Privacy Act (Section 6-1-1303(24)).

3.24 Test Session

A singular instance of a Test.

3.25 Test Session Data

Information collected regarding an administered Test. Test Session Data may include the system compatibility check, biometric information, candidate attestation, keystroke logging, a Test Irregularity, Test Taker satisfaction survey results, and a Test session recording.

3.26 Test Sponsor

The entity that relies on the Test scores. A Test Sponsor may be the owner, publisher, or user of a specific Test, and may be an academic institution, credentialing body, employer, instructor, or regulatory body.

3.27 Test Taker

An individual being tested. Alternate terms for Test Taker include candidate, examinee, and student.

Guiding Principles

4.0 Introduction to Guiding Principles

The guiding principles set forth below form the foundation for these Standards and Best Practices. Because the Standards and Best Practices cannot address every situation, these principles should serve as a reference when questions arise or as technology advances.

4.1 General Principles

4.1.1 Test administration is a critical aspect of Test validity. Test validity refers to the extent to which a test accurately measures what it purports to measure.

4.1.2 Technology tools, including hardware and software, used in the administration of Tests, should be evaluated and demonstrated to work as intended prior to use in a Test Session.

4.1.3 A Test Taker should be given a reasonable opportunity to practice and become familiar with any Test delivery or administration tools before a Test is administered for scoring.

4.1.4 Test Takers should be informed of the terms and conditions under which the Test will be administered before the Test Session. It is a best practice to include this information in a Test Taker agreement or the testing terms and conditions.

4.1.5 A Test administration should use uniform procedures so that results can be compared to each other.

4.1.6 A Test administration process should not interfere with Test Taker performance.

4.1.7 The Test Sponsor is responsible for making the Test accessible to all Test Takers. Accessibility includes making the test available to those who require reasonable accommodations for a physical or mental disability as defined by accessibility laws and regulations, as well as to individuals who may have limited access to internet connectivity, appropriate technology, or a quiet and secure space suitable for Test administration.

4.1.8 A Test and the Test administration process should not discriminate against Test Takers based on any factor that is irrelevant to the constructs being measured in the Test. This includes, but is not limited to, a prohibition against discriminating based on gender, gender identity, race, color, national origin, disability, sexual orientation, religion, age, or any other factor not relevant to the constructs being measured.

4.1.9 Because the Online Observation of Tests may create different vulnerabilities in the Test administration process, Test Sponsors should consider holistically how to incorporate such services into their testing program. This includes evaluating test design and length, breaks, administration rules, incident response, and evidence available for investigation.

4.1.10 If Test Sponsors offer both in-person and online delivery when implementing the Online Observation of Tests, Test Sponsors should regularly evaluate their data to best ensure there is an equivalent and fair test taker experience across all delivery methods.

4.2 Test Security Principles

4.2.1 Access to unauthorized information or assistance, whether through individuals, tools, testing aides, or technology during a Test Session, and whether intentional or unintentional, adversely affects the validity of Test results and the security of Test content.

4.2.2 Recording or otherwise capturing confidential, secure Test content prior to, during or after an authorized Test Session for an unauthorized purpose adversely affects the validity of Test Results and the security of Test content.

4.2.3 The level of security a Test Sponsor requires for a Test should be commensurate with the level of risk to the intellectual property and associated Test assets and the intended end-use of the Test results.

4.2.4 Test Sponsors are responsible for using reasonable efforts to deter or mitigate conduct that can reduce the validity of Test results.

4.2.5 Test Sponsors and Test Proctors have a responsibility to address conflicts of interest.

4.2.6 Test Sponsors have a responsibility to establish fair policies and procedures for remediating Irregularities, protecting score validity, and preventing other test security concerns. The process for remediating concerns should include an opportunity for Test Takers to appeal any adverse decisions to a human.

4.3 Data Privacy Principles

4.3.1 The collection and Processing of a Test Taker's Personal Information should be limited to the data that are reasonably necessary to deliver services to the Test Taker. The Data Controller is responsible for ensuring that a transparent privacy policy and notice of that policy are readily available to all Test Takers.

4.3.2 The types and nature of the Test Taker's Personal Information to be collected and the purposes for which it will be used should be disclosed in clear and transparent language to the Test Taker before data collection begins.

4.3.3 The identity of the Data Controller(s) and how to contact the Data Controller(s) shall be disclosed to the Test Taker.

4.3.4 It is the responsibility of the Data Controller to obtain informed consent from a Test Taker before Personal Information is collected and processed or to provide an alternative legal basis to the Test Taker for collecting this information. Examples of alternative legal basis may include the Test Sponsor's fulfillment of a contract, legitimate interest in Processing Personal Information, or the public interest in Processing Personal Information.

4.3.5 The Data Controller should ensure that it has established written policies and procedures to comply with applicable data privacy laws and regulations in relevant jurisdictions in which it is administering Tests.

4.3.6 A Data Controller that Processes Test Takers' Personal Information and a Data Processor acting on behalf of the Controller should have written security plans in place to protect the information. A Processor that is responsible for Processing Personal Information when an incident or breach occurs should report it to the Controller and otherwise follow the requirements under its contract with the Controller, while the Controller should respond to incidents or breaches when Personal Information is under its control and comply with applicable jurisdictional laws and regulations related to reporting any confirmed breach of the Processor.

4.3.7 The Data Controller and the Processor should have in place technical and organizational measures to protect the security and confidentiality of personal information through established security and privacy controls, such as those provided by NIST or ISO, or through a SOC-2 attestation. Security controls should be reviewed on a regular basis.

4.3.8 A testing organization should carefully consider whether and how it may be able to De - identify or Pseudonymize any Test Takers' personal information it Processes.³

4.3.9 Personal Information Processed for administration of a Test Session should only be retained for as long as needed. Different data may be retained for different periods of time. Personal Information should be securely and irretrievably deleted or Anonymized after the applicable retention period is over.

³ Note that any De-identified or Pseudonymized data is subject to GDPR requirements, whereas Anonymized data is not. Data that is deidentified consistent with California Consumer Privacy Act as amended or similar state privacy laws may not be considered Personal Information.

A. Online Observation of Tests with a Proctor

5 Test Sponsor Requirements and Best Practices for the Online Observation of Tests with a Proctor

For ease of review, this section will refer to the Online Observation of Tests with a Proctor as the Online Observation of Tests. The following clauses set forth Test Sponsor responsibilities related to the Online Observation of Tests with specific focus on Test administration and post-administration.

Test Sponsors may work with other technology providers during the testing process. Technology-Based Test Delivery Providers, Test Taker management systems, Test Taker registration systems, voucher systems, and credential management platforms are all examples of additional technologies that may impact the Test Taker experience and should be considered by the Test Sponsor as part of the overall testing process. As stated in the Introduction, this set of standards and best practices focuses exclusively on the Online Observation of Tests and does not apply to the software and services for delivering an online Test.

5.1 Test Sponsor Policies and Procedures

5.1.1 The Test Sponsor shall develop, implement, and maintain written policies that promote a standardized, secure, and fair Test experience commensurate with the purpose of the Test.

- Test Sponsor policies will vary depending on the assessment purpose and the demographics of the testing population. When considering policies for the Online Observation of Tests, policies typically address Test security, such as the requirements for Test Taker authentication and oversight of the Test environment, what aids a Test Taker is allowed to use during the Test, and how Irregularities will be documented, reviewed, and resolved.
- The Test Sponsor should include policies that address requirements for the Proctor, such as requiring an agreement to keep Test content and other information regarding the Test Session confidential, the desired level of training for Proctors, and how many Test Takers a single Proctor is allowed to monitor in the same Session.
- Test Sponsor policies often address when and how a Test Sponsor may audit any Test Session record as well as how a Test Taker may challenge a test score or other decision.
- Test Sponsor policies also should specifically address disability and other accommodations or exemptions available for tests delivered using Online Observation. The Test Sponsor should document the process and timeline for requesting disability-related accommodations where the Test Taker can easily access the information prior to enrolling in the Test. The Test Sponsor should ensure that the information is available in an accessible format, such as following the W3C guidelines if the information is posted on a website.⁴ Policies related to

⁴ See *Web Content Accessibility Guidelines, (Version 2.1)*, adopted June 5, 2018, <http://www.w3.org/TR/2018/REC-WCAG21-2018-6-5>. Additional recommendations are found in the Editor's Draft, dated Aug. 9, 2018, and in a

special accommodations should be integrated into training documents and Test Session scripts.

- Where feasible, it is also good practice to respect religious or cultural practices of Test Takers. For example, it may be appropriate to allow a female Test Taker to request a female Proctor due to religious restrictions. Similarly, the Test Sponsor may permit a Test Taker to wear head scarves or other head coverings during the Test Session if head coverings are required by the Test Taker's religion.
- Test Sponsors should communicate relevant policies, and any exceptions, to the Online Observation Provider. To gauge compliance with Test Sponsor policies, it is recommended that Test Sponsors regularly undergo an internal policy and procedures review as it applies to the Online Observation of Tests with a Proctor. Each organization should define the timeframe for regularly undertaking a review and the policy and process for such review. If AI or biometrics are being used, the AI or biometric algorithms, evidence to support application across demographic groups, and related policies may need to be reviewed more frequently.

5.1.2 The Test Sponsor shall develop, implement, and maintain written policies regarding the use of testing aids during a Test Session.

- Testing aids include external calculators, erasable white boards, scratch paper, textbooks, and other materials as well as integrated calculators, highlighters, and magnifying tools approved by the Test Sponsor. Before approving use of such aids, Test Sponsors should be mindful of the limited ability to inspect and monitor specific testing aids at all times during the Test Session.

5.1.3 The Test Sponsor shall develop, implement, and maintain written policies to protect the integrity of the testing process and testing assets before, during, and after the administration of a Test.

- Common policies for protecting the integrity of the testing process may include rules prohibiting scratch paper, pens, food, or smoking materials in the testing space.

5.1.4 The Test Sponsor shall develop, implement, and maintain written policies that control the physical testing environment to minimize test security threats during a Test.

- One of the advantages of delivering a Test using Online Observation is the flexibility to provide Test Takers an option to test outside of a test center while still providing appropriate Test security. Test environment requirements may address, for example, the Test Taker's person (such as requiring that a Test Taker roll up their shirt sleeves to demonstrate they are not wearing a watch), that the Test Taker be alone in the room, or that the testing area be free of unauthorized materials. Descriptions of the types of suitable testing locations (such as at home or in a library), and the types of unsuitable testing locations (such as a coffee house or inside a vehicle) may also be provided. Test Sponsors should balance the need to provide

access to the Test with the need to administer the Test in a secure environment. For example, it may be appropriate to provide some flexibility for Test Takers who are minors or for Test Takers who are testing in a home environment where disruptions by a family member or pet may occur during the administration of the Test.

5.1.5 The Test Sponsor shall develop, implement, and maintain written policies to manage the digital testing environment and control for Test security threats during the Online Observation of Tests.

- Examples of digital testing environment requirements may include compatible camera technology, microphone, software, or installation of proprietary web browsers, browser extensions, or plug-ins. Test Sponsors should provide public facing information regarding any requirements for the digital testing environment in a manner that can be easily accessed by Test Takers. The more a Test Taker can do in advance to prepare the digital testing environment, the less likely an incident will arise during the launch or administration of the Test Session that could pose a threat to Test security or to the administration of the Test.

5.1.6 The Test Sponsor shall develop, implement, and maintain written policies regarding the requirements to authenticate the Test Taker before and during the Test.

- The requirements for Test Taker authentication should be commensurate with the risks associated with any particular Test. For example, a lower stakes Test may approve of self-identification or display of a school identification card that includes a photo, while a higher stakes Test may require a government issued identification card or even biometrics. To ensure Test Takers are prepared to present any required identification information and to respect the privacy rights of Test Takers, Test Sponsors should provide public-facing information regarding Test Taker identification requirements, including the data collected, its purpose, and where it is stored.
- Test Sponsor policies related to Test Taker authentication should be integrated into Online Observation Provider training documents and Test Session scripts.
- Biometric Data may be used during the Test Taker authentication process. If the Test Taker is authenticated using an automated process incorporating Biometric Data, the Test Sponsor should require human reviewers to verify rejections received from the automated process.
- From a user experience, it may be preferable to allow the Test Taker to leverage the Technology-Based Test Delivery Provider's login/SSO/IMS standard to avoid requiring the Test Taker to maintain separate registration and login information from Technology-Based Test Delivery Provider's platform. Test Sponsors should seek to ensure that the security for accessing the platform is sufficient for the stakes of the Test.

5.1.7 The Test Sponsor shall develop, implement, and maintain written policies regarding authorized and unauthorized Test Taker breaks during an Online Test.

- The Test Sponsor should publish policies on how authorized and unauthorized breaks will be managed. While many programs allow for scheduled breaks, there may be unscheduled breaks that are still permitted by the Test Sponsor. For example, a nursing mother may need an unscheduled break to breast feed or express breast milk. The Test Sponsor should decide

in advance how it wants the Online Observation Provider to manage unscheduled break needs and communicate its acceptable options to the Online Test Provider. The Test Sponsor's policies should be clear on the circumstances in which break times will count against total allotted Test time, and whether a Test Taker is allowed to revisit Test questions after returning from a break. Policies should also be clear on whether the Proctor should re-check the Test Taker's person and testing environment or re-authenticate the Test Taker after any break. The Test Sponsor should collaborate with the Online Observation Provider to ensure proper Proctor training and documentation is in place to enforce Test Sponsor break policies.

5.1.8 The Test Sponsor shall develop, implement, and maintain a written plan that specifically addresses risks and Irregularities that may arise when administering a Test using Online Observation of Tests with a Proctor.

- As with any Test delivery method, the Test Sponsor should have in place a written plan that addresses key risks and Irregularities associated with a Test. There are risks and Irregularities that are unique to the Online Observation of Tests with a Proctor that should be addressed, such as interruptions from children, dogs barking, doorbells ringing, and technology disruptions. The written plan should address how these incidents should be handled and responded to during the Test Session by the Proctor and how they will be addressed after the Test Session by the Test Sponsor.
- The written plan should include the investigation process and evidence to be collected and reviewed. For example, in the event of a rule violation, the Test video, indicators of possible Irregularities, and Proctor notes or reports should be reviewed prior to making an outcome determination.
- Depending on the level of the incident or Irregularities, the written plan should also include expected notice and response times in line with level of urgency and threat to Test integrity or Test Taker privacy. In addition, for higher level matters, the Test Sponsor and Online Observation Provider should have personnel identified to respond to incidents or Irregularities.
- Test Sponsors should regularly review and update their written plans to ensure they are current.

5.1.9 The Test Sponsor shall develop, implement, and maintain written policies and procedures for responding to noncompliant physical or digital environments, noncompliant identification, and unauthorized Test Taker behavior during an Online Test.

- The Test Sponsor instructions provided to the Online Observation Provider should clearly address how noncompliant incidents should be handled during the Test Session by the Proctor.

5.1.10 The Test Sponsor shall develop, implement, and maintain written processes for addressing the use of algorithmic decision-making, such as the use of AI during the Online Observation process. When a negative outcome is recommended by AI during the Online Observation process, the Test Sponsor or its agent shall engage in human review, at a minimum.

- The Test Sponsor or its agent should use human review to validate the Online Observation Provider's data suggesting that an Irregularity may have occurred. If an intervention is taken due to an Irregularity indicator during the Online Observation Process, the Test Sponsor should require that the Proctor log and report that intervention for later review by the Test Sponsor.

5.2 Test Sponsor Privacy Policies and Best Practices Related to Online Observation

5.2.1 The Test Sponsor shall develop, implement, and maintain written policies and procedures to protect Personal Information, including Sensitive Personal Information, captured during the Online Observation process.

- The Test Sponsors should develop written policies related to securing facilities and systems (such as software, platforms, applications), training personnel, data privacy, data retention, and data destruction.
- Because the laws and regulations protecting Test Taker information can vary by country and state, the best practice is to be familiar with applicable laws and statutes and to treat all Personal Information with care. The Test Sponsors should specify any data protection standards to which it adheres.
- The Test Sponsor should review its privacy policies and procedures on a regular basis to ensure they are current, clearly written, transparent, and compliant with applicable privacy laws and regulations.
- The Test Sponsor should also ensure that the Online Observation Provider has similar documentation available concerning the protection of Personal Information.

5.2.2 The Test Sponsor shall Process only the minimum amount of Personal Information needed for the functioning, integrity, or security of the Test and the administration of the Test.

- The Test Sponsor should audit the data it collects and identify the purpose and use for the data collected.⁵ The Test Sponsor should collaborate with the Online Observation Provider to identify the type of data needed to observe the Test, report Irregularities, and provide score reports. If the Test Sponsor determines it wants to Process Personal Information for research, it should establish procedures by which it anonymizes or de-identifies that data so that Test Takers' Personal Information is not unnecessarily retained for such purpose(s).

5.2.3 The Test Sponsor shall document the types of Test Taker Personal Information Processed during the testing process and conduct an inventory of that data, including where it is located and in what systems or databases it is processed or stored.

- The Test Sponsor should identify the location of Personal Information, where it is hosted, with whom it is shared, and whether data is transferred across borders.

⁵ Given evolving privacy laws and regulations, a Test Sponsor should evaluate its need for specific personal information. The principles of Data Minimization and Purpose Limitation should guide the Test Sponsor in this evaluation to limit the amount of personal information collected, processed, and stored, thereby limiting the organization's risk exposure and legal liability.

- The Test Sponsor should contractually require that any third parties used in the testing process, including the Online Observation Provider, accept substantially similar requirements covering their work on behalf of the Controller. Further, the Processor must require the same obligations of any Sub-Processors.

5.2.4 The Test Sponsor shall identify any Personal Information that is considered “sensitive” under the laws or regulations of jurisdictions in which its Tests are delivered and adopt appropriate procedures for Processing that data.

- In some jurisdictions, certain data such as children’s data, biometric data, health data, or data that indicates the race or ethnicity of the Test Taker needs special protection or imposes additional requirements on the Controller if it is collected that may affect how the Processor handles its Processing. The Test Sponsor should identify such Sensitive Personal Information and ensure it is appropriately protected during Processing.

5.2.5 The Test Sponsor shall identify the purpose(s) for which Test Taker Personal Information is collected and processed during Testing and clearly provide that information to Test Takers in a transparent manner.

- Examples of purpose include collecting Personal Information for the purpose of Test Taker authentication or to report scores following the conclusion of the Test.

5.2.6 The Test Sponsor shall limit its use of Personal Information to the stated purpose(s) and shall ensure the Online Observation Provider and any Sub-Processor also limit use of Personal Information to the stated purposes.

- If the Test Sponsor uses Test Taker Personal Information for other purposes, those new purposes must be disclosed to the Test Taker in a separate notice and meet any jurisdictional legal approvals and requirements.

5.2.7 The Test Sponsor shall have a written agreement with any Processor that specifically identifies the services the Processor is to provide, including its responsibilities regarding Personal Information, information security, and any cross-border data transfers.

5.2.8 The Test Sponsor shall document in writing how long different types of Personal Information are retained. After the retention period or in the event the Test Sponsor stops using a Processor, the Test Sponsor or its agents shall promptly and irrevocably destroy the data or engage in Anonymization of the Data or Data De-Identification.

- The Test Sponsor should establish a time period for each type of Personal Information that is the minimum time necessary to hold such data. Some types of data, such as copies of government identity documents, may be retained for less time than other less sensitive data.
- Technical measures should be used to ensure the deletion or anonymization of Personal Information is irrevocable or De-identification of data cannot be re-identified.

5.2.9 The Test Sponsor, as the Data Controller, shall publish a publicly accessible privacy policy that shall include processes for how Test Takers can exercise their rights related to their Personal Information.

- This information should include how Test Takers can access or receive a copy of their Personal Information, processes for how Test Takers can request revisions or deletion of their Personal Information, and any circumstances under which such requests may be denied.
- Test Sponsors may deny requests for revision or deletion for legitimate reasons. For example, a Test Sponsor may deny a Test Taker's request to delete Personal information, such as a Test Taker's video, if the information needs to be retained for a legitimate test security reason, such as an investigation of proxy testing.
- Test Takers' rights related to their Personal Information are determined by applicable laws and regulations.

5.2.10 The Test Sponsor shall have written policies and procedures related to Test administration that require technological and organizational security measures to be in place to protect Personal Information from destruction, loss, alteration, unauthorized disclosure, unauthorized access, and unauthorized Processing, including:

- a) Requiring Test Taker's Personal Information to be encrypted at rest and encrypted or otherwise securely protected in transit;
- b) Limiting access to Personal Information to only those individuals whose duties require such access; and
- c) Requiring that Personal Information collected during the Test Session be returned, destroyed, or anonymized after the retention period or at the termination of any vendor agreement.

- Test Sponsors should be familiar with and follow technical practices for ensuring the confidentiality, integrity, and availability of Personal Information. For example, the Test Sponsor should restrict access to Personal Information to only authorized individuals, following the principle of least privilege when it pertains to user access. The Test Sponsor should maintain policies regarding role-based access and permitted activities, such as "read only," and be familiar with applicable information security standards.
- Test Sponsors should follow the principles of Privacy by Design and Privacy by Default in their process and system design. Privacy by Design and Default is an approach to systems development that requires data protection be considered throughout the development process. These terms may have specific meanings in different jurisdictions. For example, in some jurisdictions these concepts include not only the development of systems but also Processing activities.
- The Test Sponsor should conduct regular internal security reviews to ensure the appropriate protection of Personal Information.

5.2.11 The Test Sponsor shall provide annual training in data privacy and information security to its personnel with authorized access to Test Taker Personal Information. The Test Sponsor shall maintain evidence and records of the training.

- The Test Sponsor should provide training in accordance with applicable regulations, such as the Family Educational Rights and Privacy Act (“FERPA”) in the United States, the Personal Information Privacy Law (“PIPL”) in China, or GDPR in the European Union. Training should include requirements for categorizing, accessing, and protecting sensitive data and Personal Information, as well as the legal requirements of confidentiality and the importance of maintaining the chain of custody documents.
- Employee acknowledgments for protecting Personal Information should be a component of annual privacy training. The Test Sponsor should periodically assess personnel to check their understanding of such training.

5.3 Biometrics and Artificial Intelligence.

Biometric technology can be used to improve upon the accuracy of human verification of identity. For example, an identity can be established from a biometric capture against an identity document, and then used to assure that a Test Taker remains the same individual throughout the testing process. This identification could occur using facial recognition, fingerprints, iris scans, or other physical characteristics that, when independent or pieced together, can be used to identify an individual against a claimed identity.

Laws regulating the governing the Processing of Biometric Data vary across regions, and new laws and regulations continue to be enacted. A Test Sponsor should consider the jurisdiction(s) in which it operates to fully appreciate the rights and obligations of the parties involved in collecting and Processing Biometric Data. For example, under GDPR Biometric Data are considered sensitive or specially protected data that requires heightened protection, including express consent by the individual with the right to withdraw consent at any given time. In some jurisdictions where a photograph is used to confirm Test Taker identification, the photograph may be considered Biometric Data. Given the sensitivity and strict treatment of Biometric Data in the EU, Test Sponsors delivering Tests in Europe may wish to provide other options, disable use of Biometric Data, or otherwise ensure that Test Takers can choose not to provide Biometric Data without adverse consequences.

AI systems and processes rely upon algorithms that can predict patterns in data. AI systems can be used in multiple ways during the Online Observation of Tests, including identifying aberrant Test Taker or Proctor behaviors based on video or audio data or determining if other Irregularities occur in the testing process or environment that can be identified for human review.

While AI systems and processes can help augment human observations, AI can result in and perpetuate bias. Three categories of bias have been identified: algorithmic prejudice (which arises when there are correlations between protected features and other factors); negative legacy bias (which stems from bias in the training data); and underestimation (which occurs when the data used to train the system is imbalanced, resulting in bias against a defined class). Because of the potential for bias and discrimination when implementing AI, use of AI in testing has come under additional scrutiny from the public and from regulators. Laws regulating the use of AI are continuing to evolve and expand around the world. To remain up to date, Test Sponsors should

regularly reference the laws and regulations in the localities in which their Test Takers are located and where their Tests are administered for guidance on use of AI.

5.3.1 If Biometric Data are captured during the Test administration process, the Test Sponsor shall ensure the Biometric Data are used only for the stated purpose and any related security measures and retention periods for Biometric Data are followed.

- Test Sponsors should regularly monitor the use of any Biometric Data and remediate if bias or discrimination is found or likely to occur.
- Test Sponsors should request the Online Observation Provider to submit bias or discrimination evidence regarding the use of Biometric Data and require the Online Observation Provider to monitor the tool on an ongoing basis to ensure any bias or discrimination remains limited and mitigated.

5.3.2 The Test Sponsor shall provide written notice to Test Takers regarding the Processing of Biometric Data during the Test administration process, how the Biometric Data will be used, and the retention period for the Biometric Data.

- Notice provided by the Test Sponsor should clearly describe the purpose of Processing Biometric Data. For example, Biometric Data may be used for Test Taker authentication or security of the Test and Test Session. Notice may also include explanations of how reference information was obtained, how the sample/claim information was obtained, the basic chain of Biometric Data Processing (detection, qualification, template generation, matching, decision), cooperative use expectations, and fallback processes.
- In addition, in many jurisdictions, Test Sponsors must also obtain express written consent from Test Takers before collecting Biometric Data and allow the Test Taker to withdraw their consent at any time unless there is another legal ground for Processing Biometric Data, such as applicable law that allows its continued use.

5.3.3 If Artificial Intelligence is used during the Test administration process to identify an Irregularity, the Test Sponsor shall require evidence that the Artificial Intelligence has been trained and tested to mitigate the potential for bias or discrimination.

- It is important for Test Sponsor's to evaluate and monitor the AI tools utilized in Online Observation and limit or mitigate any bias. Monitoring should occur on an on-going basis, as bias could be introduced over time based on the data experienced by the algorithm. As noted in the introduction, bias evidence may describe the documentation of metadata measured and indicating how bias was assessed, the measures of inequity in training or testing data, the methods used to mitigate data inequity (architectural or training), measures taken to mitigate group bias, especially in the data labelling phase, and any measures of inequity in system performance.

5.3.4 The Test Sponsor shall provide notice to Test Takers regarding the use of AI or automated decision-making employed during the Test administration process.

- Test Sponsors shall disclose any use of AI or automated decision-making that has the potential for a serious impact on the individual as well as how Test Takers can appeal a negative decision to a human reviewer. This requirement does not require Test Sponsors to disclose its Intellectual Property or Intellectual Property rights or provide such details that a Test Taker can work around security but should include a high-level explanation of the use of automated decision-making or AI employed during the Test administration process to inform Test Takers about how such technology is used.

5.3.5 If AI or automated decision-making tools are used during the Test administration process to identify suspected Irregularities, the Test Sponsor shall develop processes that enable human review of any decisions made because of using AI or automated decision-making tools during the Online Observation process.

- Test Sponsors are required to disclose any automated decision, whether or not rendered by AI, that has the potential for serious impact on an individual and the process for appealing that decision to a human reviewer. The Test Sponsor should enable human review or audit of any data associated with an Irregularity indicator generated by AI, whether initially or through escalation to human review. While a Test Sponsor can delegate the responsibility to review data generated by AI to the Online Observation Provider, final adjudication of a decision must remain with the Test Sponsor.

5.4 Pre-Contracting and Contracting Considerations with the Online Observation Provider

The business and contracting structure for delivering a Test using Online Observation may vary. For example, a Test Sponsor may work directly with an Online Observation Provider or may work with a Technology-Based Test Delivery Provider who also offers Online Observation. This section is intended to address both scenarios.

5.4.1 Prior to entering into an agreement for the Online Observation of Tests, the Test Sponsor shall conduct due diligence to understand the business structure of the entity providing the Online Observation services and obtain information about its technology, operations, policies, and practices.

- Pre-contracting due diligence is important to help the parties better understand the others' needs, align expectations, and come to a clear agreement as to their respective responsibilities. It is common for both parties to share information during this process. It is recommended that a mutual non-disclosure agreement be in place prior to sharing confidential or sensitive business information.
- During the pre-contracting phase, the Test Sponsor should share information with and obtain information from the entity providing the Online Observation services to enable all parties to align their respective responsibilities and expectations in providing services to Test Takers.

- The Test Sponsor should communicate to the Online Observation Provider its requirements regarding data privacy, accommodations, testing environment, Test Taker identification, and security measures.
- To help ensure a positive Test Taker experience, the Test Sponsor should further share information about the various systems involved in the testing process so the parties can better understand how those systems will integrate with the Online Observation services. For example, other systems may include Learning Management Systems, Learning Tools Interoperability (LTI), Application Programming Interface (API) integrations, or Technology-Based Test Delivery integrations. Test Sponsors should also ask about how the Online Observation Provider collects feedback from Test Takers regarding their experiences. In addition, Test Sponsors should ask what information the Test Sponsor will need to provide for each Test Session and in what format the information will be shared.
- Test Sponsors should be prepared to share additional information with the Online Observation Provider if requested during this pre-contracting stage. For example, the Test Sponsor should be prepared to share information concerning its corporate structure and whether it is currently delivering Tests using Online or In-Person Proctors.
- During due diligence, it is important for the Test Sponsor to understand the business structure and financial position of the entity or entities providing the Online Observation services and Processing any Test Taker data. This will enable the Test Sponsor to better understand the responsibilities of each party and ensure the correct party or parties are included in the agreement.
- The Test Sponsor's due diligence should include the Online Observation Provider's policies and practices related to Processing Test Taker Personal Information. Such due diligence may include a privacy risk assessment by the Test Sponsor, with assistance from the Online Observation Provider, to assess the impact the Online Observation Provider's procedures may have on Test Sponsor's ability to meet applicable privacy laws and regulations. The Test Sponsor should ask the contracting entity to define the geographical locations in which Test Taker Personal Information is stored or if it is moved across territorial boundaries by the Online Observation Provider or the Technology-Based Test Delivery Provider. This will help the Test Sponsor to properly include contractual obligations in the agreement to protect Test Taker Personal Information and confidential data. Similarly, the Test Sponsor should inquire regarding the contracting entity's ability to securely collect, process, and store Test Taker Personal Information and other confidential data.
- The Test Sponsor should seek to understand from the Online Observation Provider the specific technical interactions of its methodology, such as use of collaboration technology, browser plug-ins, browser extensions, or client applications (.exe or dmg file types). The Test Sponsor should also request information regarding protocols, procedures, and tools used during the Test Session to observe the Test Taker and take actions either before or during launching the Test to ensure they are consistent with the Test Sponsor's written policies. For example, the Test Sponsor should inquire whether the Online Observation Provider can use technology to prevent the Test Taker from gaining access to information outside the testing environment and if it uses or can offer algorithmic methods to monitor Test Takers and identify potential Irregularities.

- The Test Sponsor may also desire information about Proctor language capabilities, communication skills, and training. It should also seek additional information regarding the requirements for Proctor equipment, such as the minimum screen sizes for Proctors, the Proctor to Test Taker ratios, and the security measures required for Proctor equipment.
- The Test Sponsor should ascertain from the Online Observation Provider the disaster recovery and business continuity plans and redundancies in place to address emergency situations that may occur at the Online Observation Provider's main site(s) or in the event of technological attempts to disrupt service. These plans should also ensure confidentiality, data security, and data integrity in the event of an emergency. This may include but not be limited to disruption of a key service or main site(s).

<p>5.4.2 The Test Sponsor shall enter into a written agreement with the provider of Online Observation services.</p>
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- As noted above, this agreement may be directly with the Online Observation Provider or with a Technology-Based Test Delivery Provider who then enters into a separate agreement with the Online Observation Provider. The agreement should address the business arrangement between the parties including but not limited to the following topics as they relate to the Online Observation of Tests:
 - Test Session requirements, including the Test Sponsor's specifications concerning Test Taker authentication, device and environmental requirements, allowed testing aids, and Test Taker conduct;
 - Security and data privacy requirements, including distinguishing between the responsibilities and liabilities for the Data Controller and Data Processor;
 - Test Taker and Online Proctor technology system requirements and technology protocols to prevent access to unauthorized information;
 - Average Test Taker to Proctor ratios and the maximum number of Test Takers each Proctor will monitor concurrently;
 - Proctor training and conduct requirements;
 - Support for Test Takers;
 - Online Proctor reporting and performance metrics;
 - Online Proctor assignment and conflict of interest requirements;
 - Audit rights, indemnification and insurance obligations, if any;
 - Data storage, retention, and destruction requirements; and
 - Business continuity and incident response requirements.
- Test Sponsors should communicate with vendors what relationships or situations may constitute a conflict of interest and are required to be reported to the Test Sponsor should they arise.
- During the term of the contract, the Test Sponsor and contracting entities should conduct periodic meetings to ensure procedural and technical requirements are being met.
- The Test Sponsor may also wish to specify the Online Observation Provider's requirement to provide software release notes or an accessible change log of software revisions, as well as documented "roll back" processes in the event a new software release is not working as designed.

5.5 Pre-Test Communications with the Test Taker regarding the Online Observation of Tests with a Proctor

5.5.1 The Test Sponsor shall provide publicly accessible information concerning the Online Observation of Tests with a Proctor, including:

- a) the Test Takers' rights and responsibilities, including the hardware and software specifications required for the Test Session and the testing environment requirements the Test Taker is responsible for providing;
- b) testing day rules, testing protocols, and authorized Test Taker behaviors, including Test Taker Authentication requirements, and whether algorithmic methods, such as AI, are used during the Online Observation process;
- c) accessibility compliance, including how to apply for accommodation requests; and
- d) the Test Sponsor's privacy policy.

- The Test Sponsor should provide information and guidance to Test Takers in understanding what technical and equipment needs must be met to take the Test, such as a functioning computer, camera, microphone, and acceptable internet connection.
- The Test Sponsor should offer this information in multiple locations. For example, the Test Sponsor should provide Test Taker technology requirements on its website as well as during the registration process, or publish the Test rules on its website, display them during the registration process, and summarize them online or through the Proctor prior to the start of the Test Session.
- Ideally, Test Takers should be given access to this information and the agreement prior to the Test Session to allow time for review.
- Test Sponsors should consider alternative options for accessibility compliance when it comes to test administration. For example, Test Sponsors who require testing at Test Centers may need to offer at home testing with Online Observation to accommodate Test Takers who demonstrate that it is a reasonable accommodation for their disability. In the same way, Test Sponsors who offer a Test using Online Observation may need to accommodate Test Takers at a Test Center if they demonstrate that it is a reasonable accommodation for their disability. Test Sponsors should provide public facing information regarding special accommodations and procedures for requesting such accommodations. Examples of accommodations specific to the Online Observation of Tests with a Proctor may include policies and procedures for extended time, frequent breaks, or permitting a Test Taker to have water in a clear glass on the desk during the Test.
- The Test Sponsor's privacy policy should clearly identify who is the Controller(s) of the Test Taker's Personal Information and how to contact the Controller(s) to raise questions, issues, or concerns, and how to make requests about Personal Information under applicable privacy laws and regulations.

5.5.2 The Test Sponsor shall provide the Test Taker with the opportunity to become familiar with the Online Observation process.

- Because Online Observation may be new to some Test Takers, it is helpful to provide opportunities for the Test Taker to become familiar with the process prior to the Test Session.
- Ideally, the Test Taker should have the ability to check the hardware and software requirements prior to registering for the Test or prior to a Test Session. In addition, an online tutorial, instructions, or simulated practice test may be offered to assist the Test Taker in becoming familiar with the Online Observation process.
- Where Test Taker accommodations include use of assistive technology, the Test Taker ideally should be allowed to assess the assistive technology, such as closed captioning or screen reader tools, to ensure it works with the Online Observation system. Note, however, that compatibility with the online observation system does not ensure compatibility with the Test driver or Test content.

5.5.3 Prior to the Test, the Test Sponsor shall ensure Test Takers agree to the Test rules, the requirements of participating in the Test, and the Online Observation of their Test with a Proctor.

- The agreement should include an acknowledgement that the Test Sponsor has a legal basis for Processing Test Taker Personal Information and capture explicit consent to the collection and Processing of Sensitive Personal Information.
- The agreement should include Test day rules, protocols, and authorized Test Taker behaviors. The agreement should also set forth the Test Taker authentication requirements and nondisclosure obligations. Test Takers should agree to not disclose confidential Test content.
- The agreement should include clear ownership of data and systems, as well as rights for investigation, score or credential suspension or revocation, retest rules, and prosecution.
- The Test Sponsor should obtain the Test Taker's explicit consent to the collection and Processing of their Sensitive Personal Information, such as the capture of Biometric Data and video recordings of their image and the room where they are testing.

5.6 Administration and Post-Administration Activities

5.6.1 The Test Sponsor shall ensure processes are in place for the Online Observation Provider to promptly notify the Test Sponsor in the event of a significant incident, as defined by the Test Sponsor's incident response plan.⁶

⁶ Throughout the Standards, the term "incident response plan" is used to describe how the Online Observation Provider should deal with Test Irregularities. It is important to note that a clear distinction exists between a response for Test Session Irregularities (whether those of a technical or operational nature, such as power outages, computer system failures, or those that may be related to the integrity of a testing event, such as discovery of a proxy test taker, test takers talking to one another, unauthorized discussions with a proctor, unauthorized sharing of test items), as compared with a Test Sponsor or Online Observation Service Provider's response to technical security incidents or data breaches, that impact the security of a data systems or databased, such as unauthorized access to or disclosure of data or compromise of the entity's systems, which may affect the test administration at any time (pre-administration, during test administration, or post-administration). This distinction is consistent with the separate terms as used in the "Guidelines for Technology-Based Assessment" as published by the ATP and the

- A significant incident may include failure of the Online Observation Provider system or a data breach. A Test Sponsor should consider the service level agreements, such as time to respond or notice requirements, to include in the incident response plan.
- The Test Sponsor should act as defined within its internal policies and procedures when a significant event has been reported.

5.6.2 The Test Sponsor shall review reports and data provided by the Online Observation Provider to identify incidents or Irregularities that warrant additional action by the Test Sponsor.

- Additional data may include Proctor reports, Irregularity indicators, video or audio recordings, and response strings.

5.6.3 The Test Sponsor shall notify the Online Observation Provider of any data that must be preserved and retained or transmitted to the Test Sponsor for additional action.

- This may include recorded video or audio files from the Test Session and Proctor notes. Only authorized staff should have access to data collected in response to an Irregularity or other investigation.

5.6.4 The Test Sponsor shall require confirmation from the Online Observation Provider that it is deleting confidential data and Personal Information in accordance with agreed retention and destruction plans.

- The Test Sponsor should have a data retention policy that sets forth how it is using, storing, and destroying confidential information, such as Testing manuals and other business data, and a similar data retention policy for Personal Information, including Sensitive Personal Information. The Online Observation of Tests should be part of those policies.
- The Test Sponsor should work with the Online Observation Provider to ensure the parties' requirements are aligned and require confirmation on a regular basis from the Online Observation Provider that it is providing secure and timely removal of Personal Information from all Online Observation systems, including local systems used by the Proctor and other vendor personnel, in accordance with the Test Sponsor's agreement or instructions.
- The Test Sponsor may desire to regularly audit the Online Observation Provider to ensure adherence to its data retention and destruction policies.

International Test Commission ("ITC") (2022). Indeed, the term "Security Incident Response" is defined in the "Guidelines" as: "Actions taken by a testing organization in response to a security incident using a pre-set written response plan to investigate what happened, determine if a data breach occurred, and any remediation steps that should be taken" (TBA, 2022, page 144). Accordingly, users of the Online Observation Standards need to be careful to distinguish between "Test Irregularities" including a response plan developed by a Test Sponsor and an Online Observation Service Provider to respond to such Test Irregularities, and an Information Security Incident Response Plan developed by an entity to handle investigations and remediations of technical security breaches.

6 Online Observation Provider Requirements and Best Practices for the Online Observation of Tests with a Proctor

For ease of review, this section will refer to the Online Observation of Tests with a Proctor as the Online Observation of Tests. The following clauses set forth the Online Observation Provider's activities and responsibilities related to the Online Observation of Tests with specific focus on Test administration and post-administration.

It is not uncommon for the Test Sponsor to contract directly with a Technology-Based Test Delivery Provider who in turn subcontracts with another entity to provide Online Observation services. To the extent the Online Observation Provider is a subcontractor to a Technology-Based Test Delivery Provider, these sections should be adapted accordingly.

As stated in the Introduction, this set of standards and best practices does not apply to the software and services for delivering an online Test. While it is possible that the same organization offers software to both deliver and observe an online Test, these are two distinct activities, and the following clauses focus exclusively on the Online Observation Provider's activities and responsibilities. Online Observation Providers may work with other technology providers to administer a Test. Technology-Based Test Delivery Providers, Test Taker management systems, Test Taker registration systems, voucher systems, and credential management platforms are all examples of additional technologies that may impact the Test Taker experience and should be considered as part of the overall testing process.

6.1 Online Observation Provider Policies and Procedures

6.1.1 The Online Observation Provider shall develop, implement, and maintain written procedures to implement the Online Observation Policies that were mutually agreed upon with the Test Sponsor.

- Typically, these procedures include Proctor training, Test rules, Irregularity reporting, and security incident response activities that align with the Test Sponsor requirements.

6.1.2 The Online Observation Provider shall develop, implement, and maintain written procedures to enforce mutually agreed-upon Test Sponsor requirements regarding the use of testing aids during a Test session.

- The Online Observation Provider should train Proctors to understand the types of testing aids that may be permitted and how rules may vary across different testing programs or Test Sponsors.

6.1.3 The Online Observation Provider shall develop, implement, and maintain written procedures to enforce mutually agreed upon security policies as they relate to the Online Observation of Tests with a Proctor.

- The Online Observation Provider shall develop and implement appropriate written procedures and training to protect the integrity of the testing process and intellectual property assets of the Test Sponsor. All operational staff, support staff, and Proctors should understand the Online Observation requirements that may be unique to each Test.
- Security audits should be conducted periodically by both Test Sponsors and Online Observation Providers to confirm the appropriate procedures are routinely followed.

6.1.4 The Online Observation Provider shall develop, implement, and maintain written procedures to implement and enforce mutually agreed upon requirements that control the physical environment to minimize test security threats during the Online Observation process.

- The scan of the Test Taker environment should address the risks associated with that Test. The Online Observation Provider should work with the Test Sponsor to develop a process that is appropriate for the use of the Test results and that can be properly implemented using online tools.

6.1.5 The Online Observation Provider shall develop, implement, and maintain written procedures for enforcing mutually agreed upon requirements that manage the digital testing environment and control for test security threats during the Online Observation process.

- The Online Observation Provider may, for example, monitor the Test Taker device to identify the applications running on the device.

6.1.6 The Online Observation Provider shall develop, implement, and maintain written procedures for enforcing mutually agreed upon requirements to authenticate the Test Taker before and during the Test.

- The Test security measures, including Test Taker authentication, for an Online Test should address the risks associated with that specific Test. The Online Observation Provider should work with the Test Sponsor to develop a process that is appropriate for the use of the Test results and that can be properly implemented using online tools.
- Biometric Data may be used during the Test Taker authentication process. If the Test Taker is authenticated using an automated process incorporating Biometric Data, the Online Observation Provider's process should involve human reviewers to verify rejections received from the automated process. This human review should occur as close to the decision point as possible.
- From a user experience, the Online Observation Provider may be asked to build an integration to leverage the Technology-Based Test Delivery Provider's login/SSO/IMS standard to avoid requiring the Test Taker to maintain separate registration and login information from the Technology-Based Test Delivery Provider's platform.

6.1.7 The Online Observation Provider shall develop, implement, and maintain written procedures for enforcing mutually agreed upon requirements regarding authorized and

unauthorized Test Taker breaks, including additional security measures the Online Proctor must take, if any, after an authorized or unauthorized break.

- If the Test Sponsor allows for authorized breaks during specific times in the Test, ideally the Test content should be obscured from view during the authorized break to protect the content. In that case, the Online Observation Provider should have technical capabilities in place to plan for the start and stop of the authorized break. After the break, the technical capabilities should allow for a clear point in proceeding back into the Test.
- In addition, after any type of break, the Online Observation Providers should require the Test Taker to perform an additional room scan and re-authenticate the individual returning from break. If the Online Observation Provider also performed an inspection of the Test Taker's person, such as requiring the Test Taker to roll up shirt sleeves or turn out pockets, it is appropriate to perform a similar inspection upon return from break.
- If the Test Sponsor allows the Test Taker to also take unplanned breaks, the Online Observation Provider should confirm with the Test Sponsor what type of breaks warrant an Irregularity indicator, whether and what type of breaks count against the timed Test Session, and whether and what type of breaks should result in ending the Test Session, if any.

6.1.8 The Online Observation Provider shall develop, implement, and maintain written procedures to enforce mutually agreed upon policies for responding to and documenting noncompliant physical or digital environments, noncompliant identification, and unauthorized Test Taker behavior.

- If a Proctor intervenes in the Test Session, such as by terminating a Test if a Test Taker begins using an unauthorized mobile device or receiving assistance from a roommate during the Test, the Online Observation Provider should require the Proctor to log and report that intervention for review by the Test Sponsor.

6.1.9 The Online Observation Provider shall ensure Proctors enforce differing Test Sponsor requirements during simultaneous Test Sessions.

- Having a Proctor observe Tests with the same testing rules can avoid confusion or mistakes regarding rule enforcement. However, that may not always be the case. Online Observation Providers should train Proctors on any differences across Test Sponsors' requirements and how to handle multiple Test administration rules and procedures. It is ideal if Proctors may be assisted by technology, such as by automating access to rules or auto-highlighting differences from standard procedures. It is considered a best practice for Online Observation Providers to implement a quality control program that allows for a feedback loop to Proctors to improve performance and support continuous improvement.

6.1.10 The Online Observation Provider shall develop, implement, and maintain written procedures for providing mutually agreed-upon disability and other accommodations, such as religious exceptions, during the Online Observation process.

- Online Observation Providers should only provide those accommodations or exceptions approved by the Test Sponsor.

- Online Observation Providers should assess and update their products and materials to meet current accessibility standards requirements and best practices. Examples of Test Taker accommodations include:
 - Granting extended time to test;
 - Allowing use of chat for communication;
 - Permitting use of screen readers;
 - Permitting a human reader to read out loud instructions and items verbatim;
 - Allowing a scribe to document Test Taker response verbatim;
 - Allowing a personal care assistant (not acting in a role as a reader or scribe) to accompany the Test Taker;
 - Allowing a Test Taker to read questions out loud;
 - Allowing a service dog in the testing room;
 - Allowing additional or off-camera breaks;
 - Permitting the use of medications or oxygen during the Test;
 - Allowing the Test Taker to have stretch breaks on camera;
 - Permitting the Test Taker to perform diabetic testing;
 - Permitting the Test Taker to consume food and beverage during the Test
- Proctor training should include the different types of accommodation requests and how to support them when approved.
- Agreed upon accommodation instructions and Test Session scripts should be readily available to the Proctor before engaging with the Test Taker.

6.1.11 The Online Observation Provider shall have written policies and procedures in place to document, record, and store Test Taker's Test Session data in accordance with Test Sponsor agreements.

- Regular reviews and audits should be undertaken to ensure proper enforcement of the collection and retention of Test Session Data as agreed between the Test Sponsor and Online Observation Provider terms under the agreement.

6.1.12 Where the Online Observation Provider collects payment for the Testing session, the Online Observation Provider or any third-party collecting payment on their behalf shall ensure its policies and procedures are Payment Card Industry compliant.

- Agreements between the Online Observation Provider and Test Sponsor should outline responsibilities and terms for collection and exchange of payments between Test Takers and the collecting party. A vendor that provides payment systems should provide evidence that its policies, procedures, and systems are Payment Card Industry compliant, if requested.

6.2 Online Observation Provider Privacy Policies and Best Practices

6.2.1 The Online Observation Provider shall develop, implement, and maintain written policies and procedures to protect Personal Information, including Sensitive Personal Information, captured and Processed during the Online Observation process.

- The Online Observation Provider as a Data Processor must follow applicable legal regulations and the instructions provided by the Controller, unless it has agreed to be a Controller or Co-Controller and is subject to those Controller legal requirements.
- As a Controller or Co-Controller, the Online Observation Provider should implement protection measures related to securing facilities, training personnel, and data privacy as well as protection, retention, and destruction.
- Because the laws and regulations protecting Test Taker information can vary by country and state, the best practice is to be familiar and comply with applicable laws and regulations and treat all Personal Information with care. The Online Observation Provider should identify any data protection standards to which it adheres.
- The Online Observation Provider should review its policies and procedures on a regular basis to ensure they are current, clearly written, transparent, and compliant with applicable privacy laws and regulations.

6.2.2 The Online Observation Provider shall Process only the minimum amount of Personal Information needed for the functioning, integrity, and security of the Online Observation process.

- Data exchange of Personal Information to and from the Online Observation Provider should include only data needed for the functioning, integrity, or security of the Online Observation process. This may include the integrity and security of the Test, support of the Test Taker, or performance of the Online Observation platform.

6.2.3 The Online Observation Provider and any Sub-Processor shall document the Personal Information Processed during the Online Observation process, and conduct an inventory of that data, including where the Personal Information is located and in what systems or databases it is Processed or stored.

- The Online Observation Provider should identify and document the location(s) in which Personal Information is stored by the Online Observation Provider and/or the Sub-Processor, where it is hosted, with whom it is shared, and whether the data is transferred across borders.
- If Personal Information is stored or moved across borders, the Online Observation Provider should obtain documentation stating that the Test Sponsor or other Controller has authorized the transfer and that the data exchange procedures meet applicable legal requirements.
- Processing should align with applicable laws and regulations, as well as Controller instructions. The Online Observation Provider should require that any Sub-Processors accept substantially similar obligations.

6.2.4 The Online Observation Provider and any Sub-Processor shall identify any Personal Information that is considered “sensitive” under the laws or regulations of jurisdictions in which Test Takers are located during the Test Session and adopt appropriate procedures for Processing that data.

- In some jurisdictions, certain data, such as children’s data, Biometric Data, health data, or data that indicates the race or ethnicity of an individual, needs special protection or imposes additional requirements that may affect how it is Processed. For example, in some jurisdictions, this type of data may be Processed only with the express consent of the Test Taker. The Online Observation Provider should identify any Sensitive Personal Information and appropriately protect it during Processing.

6.2.5 The Online Observation Provider shall maintain and publish a compliant privacy policy that clearly identifies the purpose(s) for which it Processes the Personal Information of users of its products or services.

- The Online Observation Provider must clearly disclose the purposes for which it Processes Test Taker Personal Information, which may include providing technical support, improving processes, enhancing the user experience, or improving the technology.
- Example of “purpose” may be collecting Personal Information for the purpose of Test Taker authentication or to ensure the appropriate Test is given to the appropriate Test Taker.

6.2.6 The Online Observation Provider shall limit its use of Personal Information to the stated purpose(s) and ensure any Sub-Processor also limits use of Personal Information to the stated purpose(s).

- If the Test Sponsor uses Test Taker Personal Information for other purposes, those new purposes must be disclosed to the Test Taker in a separate notice and meet any jurisdictional legal approvals and requirements.

6.2.7 The Online Observation Provider shall have a written agreement with the Controller that specifically identifies the services the Online Observation Provider will provide, including the parties’ responsibilities regarding the collection and Processing of Personal Information, information security, and any cross-border data transfers.

6.2.8 The Online Observation Provider shall document in writing how long different types of Personal Information are retained. After the retention period or in the event the Test Sponsor stops using an Online Observation Provider as a Data Processor, the Online Observation Provider shall return, destroy, or anonymize the Personal Information it holds relating to that Test Sponsor per the terms of the agreement between the parties.

- Where the Online Observation Provider is acting as a Processor, it should follow the retention periods required by the Test Sponsor.
- Where the Online Observation Provider is acting as a Controller, it should document in writing how long different types of Personal Information are retained. The time period for retaining each type of Personal Information should be the minimum time necessary to hold that data.

Some types of data, such as copies of government identity documents, can be retained for less time than other less sensitive data.

- Technical measures should be used to ensure the deletion or Anonymization of Personal Information is irrevocable. The Test Sponsor may permit the Data Processor to retain data if it has been properly De-identified and cannot be re-identified.

6.2.9 Where the Online Observation Provider is acting as a Processor, it shall have a written policy for coordinating with and following the instructions from the Test Sponsor in the event a Test Taker submits a request to the Online Observation Provider concerning the Test Taker's Personal Information. Where the Online Observation Provider is also a Controller, it shall publish a publicly accessible privacy policy that addresses Test Taker requests regarding Personal Information and any circumstances under which requests may be denied.

- The Online Observation Provider should follow the instructions provided by the Controller for handling Test Taker data requests. For example, the Test Sponsor may instruct the Online Observation Provider to acknowledge receipt of a data request and then forward the request directly to the Controller for decision.
- Where the Online Observation Provider is also a Controller, it should implement processes to address Test Takers' rights related to their Personal Information, including how a Test Taker can access or receive a copy of their Personal Information or request revisions or deletion of their Personal Information, as well as any circumstances under which such request may be denied. For example, a request to delete Personal Information may be denied if the data needs to be retained for legitimate reasons, such as an investigation.
- Test Takers' rights related to their Personal Information are determined by applicable laws and regulations.

6.2.10 The Online Observation Provider shall have written policies and procedures that require technological and organizational security measures to be in place to protect Personal Information from destruction, loss, alteration, unauthorized disclosure, unauthorized access, and unauthorized Processing, including:

- a) Requiring a Test Taker's Personal Information to be encrypted at rest and encrypted or otherwise securely protected in transit;
 - b) Limiting access to Personal Information to only those individuals whose duties require such access; and
 - c) Requiring that Personal Information collected during the Test Session be returned, destroyed, or anonymized after the retention period or at the termination of the agreement with the Test Sponsor in accordance with Test Sponsor's policies or instructions.
- Online Observation Providers should be familiar with and follow the technical practices for ensuring the confidentiality, integrity, and availability of Personal Information. For example, the Online Observation Provider should restrict access to Personal Information to only authorized individuals, following the principle of least privilege when it pertains to user access. It should also maintain policies regarding role-based access and permitted activities, such as "read only," and be familiar with applicable information security standards.

- Online Observation Providers should follow the principles of Privacy by Design and Privacy by Default in their process and system design. This is an approach to systems development that requires data protection be considered throughout the development process. These terms have specific meanings in different jurisdictions. For example, in some jurisdictions these concepts include not only the development of systems but also Processing activities.
- Online Observation Providers should conduct regular internal security reviews to ensure the appropriate protection of Personal Information.
- Where practical, Personal Information captured during the Online Observation process should be held in a De-identified or Pseudonymized form.

6.2.11 The Online Observation Provider shall provide the Test Taker with the ability to end a Test Session at any time and to remove, deactivate, or uninstall any Online Observation technology placed on the Test Taker's personal device, and make such information publicly available to the Test Taker.

- Removal of the Online Observation technology should return the Test Taker's personal device to its initial state. Removal should not create any security risks on the Test Taker's device.

6.2.12 The Online Observation Provider shall provide annual training in data privacy and information security to its personnel with authorized access to Personal Information. The Online Observation Provider shall maintain evidence and records of the training.

- Data privacy training should be provided to any personnel with access to Personal Information, including but not limited to Proctors.
- Training should include applicable regulations, such as FERPA in the United States, PIPL in China, or GDPR in the European Union. Training should also include requirements for categorizing, accessing, and protecting Personal Information and Sensitive Personal Information as well as the legal requirements of confidentiality and the importance of maintaining the chain of custody documents.
- Employee acknowledgments for protecting Personal Information should be a component of annual privacy training. The Online Observation Provider should periodically assess personnel to check their understanding of such training.

6.3 Biometrics and Artificial Intelligence

Biometric technologies can be used to improve upon human verification of identity. For example, an identity can be established from a biometric capture against an identity document and then used to assure that a Test Taker remains the same individual throughout the Test session. The identification could occur using facial recognition, fingerprints, iris scans, or other physical characteristics that, when independent or pieced together, can be used to identify an individual against a claimed identity.

Laws regulating the governing the Processing of Biometric Data vary across regions, and new laws and regulations continue to be enacted. An Online Observation Provider should consider the jurisdiction(s) in which it operates to fully appreciate the rights and obligations of the parties involved in collecting and Processing Biometric Data. For example, under GDPR Biometric Data

are considered sensitive or specially protected data that requires heightened protection, including express consent by the individual with the right to withdraw consent at any given time. In some jurisdictions where a photograph is used to confirm Test Taker identification, the photograph may be considered Biometric Data. Given the sensitivity and strict treatment of Biometric Data in the EU, Test Sponsors delivering Tests in Europe may wish to provide other options, disable use of Biometric Data, or otherwise ensure that Test Takers can choose not to provide Biometric Data without adverse consequences.

AI systems and processes rely on algorithms that can predict patterns in data. AI systems can be used in multiple ways during the Online Observation of Tests, including identifying aberrant Test Taker or Proctor behaviors based on video or audio data or determining if other Irregularities occur in the testing environment that can be identified for human review.

While AI systems and processes can help augment human observations, AI can result in and perpetuate bias. Three categories of bias have been identified: algorithmic prejudice (which arises when there are correlations between protected features and other factors); negative legacy bias (which stems from bias in the training data); and underestimation (which occurs when the data used to train the system is imbalanced, resulting in bias against a defined class). Because of the potential for bias and discrimination when implementing AI, use of AI in testing has been under additional scrutiny from the public and from regulators. Laws and regulations governing the use of AI are continuing to evolve and expand around the world. To remain up to date, Online Observation Providers should regularly reference the laws and regulations in the localities in which their Test Takers are located as well as those in which they administer Tests for guidance on the use of AI.

6.3.1 If Biometric Data are captured during the Online Observation process, the Online Observation Provider shall ensure the Biometric Data are used only for the stated purpose, any related security measures are in place, and Biometric Data are retained only as long as agreed upon between with the Test Sponsor.

- Online Observation Providers should regularly monitor Processing of Biometric Data and remediate if bias or discrimination is found or likely to occur.
- The Online Observation Provider should be prepared to provide evidence to Test Sponsors that the Online Observation Provider has monitored the use of Biometric Data and taken steps to mitigate bias or discrimination found, if any. Bias evidence may describe the documentation of metadata measured and indicating how bias was assessed, the measures of inequity in training or testing data, the methods used to mitigate data inequity (architectural or training), measures taken to mitigate group bias, especially in the data labelling phase, and any measures of inequity in system performance.

6.3.2 The Online Observation Provider shall provide written notice to Test Takers regarding the Processing of Biometric Data during the Online Observation process, how the Biometric Data will be used, and the retention period for the Biometric Data.

- The Online Observation Provider is often acting as a Processor and collecting Biometric Data on behalf of the Test Sponsor. In some instances, it may also be acting as a Controller.

- Notice provided by the Online Observation Provider should clearly describe the purpose for collecting Biometric Data. For example, Biometric Data may be used for Test Taker authentication or security of the Test and Test Session. Notice may also include explanations of how reference information was obtained, how the sample/claim information was obtained, the basic chain of Biometric Data Processing (detection, qualification, template generation, matching, decision), cooperative use expectations, and fallback processes.
- In several jurisdictions, the Controller, or the Online Observation Provider if acting on behalf of the Controller, must also obtain express written consent from Test Takers before collecting Biometric Data and allow the Test Taker to withdraw their consent at any time unless there is another legally permissible ground for Processing.

6.3.3 If Artificial Intelligence is used during the Test Session to identify a suspected Irregularity, the Online Observation Provider shall compile evidence that the Artificial Intelligence has been trained and tested to mitigate bias and discrimination.

- The Online Observation Provider should evaluate and monitor AI tools it uses in Online Observation and to limit or mitigate any bias. Monitoring should occur on an ongoing basis, as bias can be introduced over time based on the data experienced by the algorithm. As noted in the introduction, bias evidence may describe the documentation of metadata measured and indicating how bias was assessed, the measures of inequity in training or testing data, the methods used to mitigate data inequity (architectural or training), measures taken to mitigate group bias (especially in the data labelling phase), and any measures of inequity in system performance.
- The Online Observation Provider should be prepared to provide evidence to Test Sponsors that it has monitored the use of AI and taken steps to mitigate bias or discrimination found, if any.

6.3.4 If Artificial Intelligence or automated decision-making tools are used during the Online Observation process to identify suspected Irregularities, the Online Observation Provider shall develop processes that enable human review of any decisions made because of using AI or automated decision-making tools during the Online Observation process.

- The Test Sponsor shall disclose any automated decision, whether or not rendered by AI, that has the potential for serious impact on an individual and the process for appealing that decision to a human reviewer. The Test Sponsor can delegate this responsibility to the Online Observation provider. Thus, the Online Observation Provider should enable human review or audit of any data associated with an Irregularity indicator generated by AI, whether initially, where feasible, or through escalation to human review. Final adjudication of a decision remains with the Test Sponsor.

6.4 Pre-Contracting and Contracting Considerations with the Test Sponsor or Technology-Based Test Delivery Provider

The business and contracting structure for delivering a Test using Online Observation may vary. For example, an Online Observation Provider may work directly with a Test Sponsor or may work

as a subcontractor to a Technology-Based Test Delivery Provider who has entered into a direct agreement with a Test Sponsor. This section is intended to address both scenarios.

6.4.1 Prior to entering into an agreement for the Online Observation of Tests, the Online Observation Provider shall respond to any due diligence requests from the Test Sponsor and seek to understand the Test observation needs of the Test Sponsor as well as its corporate structure.

- Pre-contracting due diligence is important to help the parties better understand the others' needs, align expectations, and come to a clear agreement as to their respective responsibilities. It is common for both parties to share information during this process. It is recommended that a mutual non-disclosure agreement be in place prior to sharing confidential or sensitive business information.
- During the pre-contracting phase, the Online Observation Provider should be prepared to respond to Test Sponsor questions regarding its business structure, financial situation, and business operations, as well as that of any Sub-Processor(s). The information requested may include where the organization is incorporated, where its primary place of business is located, where its proctors are located, and how they are trained. This will enable the parties to align their respective responsibilities and expectations in providing services to Test Takers and ensure the correct parties are subject to the agreement.
- The Online Observation Provider should be prepared to respond to questions about where Test Taker Personal Information is located, its data privacy and security standards, and other relevant policies and procedures. This may also include a request to conduct a privacy risk assessment to better understand the impact the Online Observation Provider's procedures may have on the Test Sponsor's ability to meet applicable privacy laws and regulations. This will help the parties properly include contractual obligations in the agreement to protect Private Information.
- The Online Observation Provider should provide the technical interactions of its software methodology, such as use of collaboration technology, browser plug-ins, browser extensions, or client applications (.exe or dmg file types). It should also provide information regarding the protocols, procedures, and tools used during the Test Session to observe the Test Taker and take actions before or during the Test, as well as any algorithmic or biometric capabilities used by the Online Observation Provider.
- The Online Observation Provider should be prepared to provide information concerning Proctor language capabilities, communication skills, and training, as well as information regarding the requirements for Proctor equipment, such as the minimum screen sizes for Proctors, the Proctor to Test Taker ratios, and the security measures required for Proctor equipment.
- In many jurisdictions, Test Sponsors are legally required to provide Test accommodations to individuals with a disability. The Online Observation Provider should be prepared to explain the types of accommodations it can effectively provide. For example, extended time and additional breaks are common requests for testing accommodations that can be effectively provided and managed during the Online Observation of Tests. In addition, due to religious requirements, some Test Takers may request that a Proctor of the same gender conduct a check-in process that includes removal of religious headwear. The Online Observation

Provider should be prepared to share with the Test Sponsor the ability to easily accommodate different types of requests.

- The Online Observation Provider should be prepared to respond to questions about its disaster recovery plan and business continuity processes. The Online Observation Provider should be prepared to make copies of key written policies available to the Test Sponsor upon request.
- This is also an opportunity for the Online Observation Provider to understand the organizational and operational structure of the Test Sponsor and the Test Sponsor's unique needs. For example, it is important to understand the business structure of the entity or entities requesting Online Observation services. This will enable the Online Observation Provider to ensure that the appropriate parties are included in the agreement.
- In addition, the parties should discuss the testing volume anticipated, length of each Test, and in what format data will be exchanged. Further, Online Observation Providers should inquire regarding the dates or date ranges needed for Test delivery and what Test Sponsor roles need access to the Online Observation data.
- The Online Observation Provider also should ask about the various systems involved in the testing process so the parties can better understand how those systems will integrate with the Online Observation services. For example, other systems may include Learning Management Systems (LMS) or Candidate Management Systems (CMS) platforms, Learning Tools Interoperability (LTI), Application Programming Interface (API) integrations, or Technology-Based Test Delivery integrations. The Online Observation Provider should also discuss how the parties will collect feedback from Test Takers regarding their experience. In addition, the Online Observation Provider should ask what information the Test Sponsor will provide for each Test Session and in what format the information will be shared. This will help ensure a positive Test Taker experience and secure exchange of data.
- The Online Observation Provider should be prepared to advise the Test Sponsor on Online Observation risks and mitigation strategies. For example, the Online Observation Provider can point out the potential risk of a Test Taker using a cell phone to capture Test content, and the possibility for the Proctor to intervene by either pausing or ending the Test in the event a Test Taker is observed using a cell phone.

6.4.2 The Online Observation Provider shall enter into a written agreement for Online Observation Services with the Test Sponsor.

- As noted above, this agreement may be directly with the Test Sponsor, or with an intermediate such as a Technology-Based Test Delivery Provider who has a separate agreement with the Test Sponsor. The agreement should address the business arrangement between the parties including, but not limited to, the following topics as they relate to the Online Observation of Tests:
 - Test Session requirements, including the Test Sponsor's specifications concerning Test Taker authentication, device and environmental requirements, allowed testing aids, and Test Taker conduct;
 - Security and data privacy requirements, including distinguishing between the responsibilities and liabilities for the Data Controller and Data Processor;

- Test Taker and Online Proctor technology system requirements and technology protocols to prevent access to unauthorized information;
 - Average Proctor-to-Test Taker ratios and the maximum number of Test Takers each Proctor will monitor concurrently;
 - Proctor training and conduct requirements;
 - Support for Test Takers;
 - Online Proctor reporting and performance metrics;
 - Online Proctor assignment and conflict of interest requirements;
 - Audit rights, indemnification, and insurance obligations, if any;
 - Data storage, retention, and destruction requirements; and
 - Business continuity and incident response requirements.
- During the term of the contract, the Online Observation Provider should conduct periodic meetings with the Test Sponsor (or Technology-Based Test Delivery Provider) to ensure procedural and technical requirements are being met.
 - The Online Observation Provider should be prepared to discuss with the Test Sponsor how release notes or updates to the software will be communicated.

6.5 Pre-Test Communications with the Test Taker regarding Online Observation

6.5.1 The Online Observation Provider shall provide publicly accessible information to the Test Taker, including:

- a) the Test Takers' rights and responsibilities regarding use of the Online Observation Provider website and system, including describing how the Online Observation Provider's technology interacts with the Test Taker's computer hardware;
 - b) the Test Takers' responsibilities to provide equipment that meets the hardware and software specifications required for the Test Session and internet connectivity at a minimum bandwidth;
 - c) Any applicable Artificial Intelligence methods used or Biometric Data gathered during the Online Observation Process;
 - d) Instructions for account creation, if required;
 - e) Customer support contact information; and
 - f) Instructions for ending a test and for removing, deactivating or uninstalling any Online Observation technology.
- As an example, the Online Observation Provider's information concerning the technological specifications may include requiring the Test Taker have a computer, camera, microphone, and adequate internet connection.
 - The Online Observation Provider ideally should offer information in multiple locations, such as publishing it on its website and displaying it prior to the start of the Test Session.
 - Where possible, Test Takers should be provided this information prior to the Test Session to allow time for review.

6.5.2 If the Online Observation Provider is a Controller or Co-Controller, communication to the Test Takers shall include, in simple language, the Online Observation Provider's privacy policy.

- The Online Observation Provider's privacy policy should clearly identify the Online Observation Provider's role, instructions for how to contact the Controller(s) of Personal Information, instructions for how to raise questions, issues, or concerns, and how to make requests about Personal Information under applicable privacy laws and regulations.

6.5.3 The Online Observation Provider shall provide the Test Taker with the opportunity to become familiar with the Online Observation process.

- Because Online Observation, or specific functioning of a particular product, may be new to some Test Takers, it is helpful to provide opportunities for the Test Taker to become familiar with the process prior to the Test Session.
- Ideally, the Test Taker should have the ability to check the hardware and software requirements prior to registering for the Test or prior to a Test Session. In addition, an online tutorial, instructions, or simulated practice test may be offered to assist the Test Taker in becoming familiar with the Online Observation process.
- Where Test Taker accommodations include use of assistive technology, the Test Taker ideally should be allowed to assess the assistive technology, such as closed captioning or screen reader tools, to ensure it works with the Online Observation system. Note, however, that compatibility with the Online Observation system does not ensure compatibility with the Test driver or Test content.

6.5.4 The Online Observation Provider shall develop, implement, and maintain written policies and procedures to ensure that any individuals interacting with the Online Observation Provider's system or platform are aware when the Online Observation Provider is launching and shutting down the Online Observation system or platform.

- In addition to written notices, the Online Observation Provider may want to develop scripts for Proctors and acknowledgement steps to share with Test Takers when they are logging in, accessing the platform, and launching the Test.

6.6 Administration and Post-Administration Activities

For the administration of the Test Session, either the Online Observation Provider or another entity may provide the Proctor. We have addressed both possibilities in this section. Proctor training and equipment requirements are further discussed in Section C.

6.6.1 The Online Observation Provider shall ensure processes are in place to promptly notify the Test Sponsor in the event of a significant incident, as defined by the Test Sponsor's incident response plan.

- The Online Observation Provider should seek to assist the Test Sponsor in identifying and defining what is considered a significant incident and the appropriate responses to take during the Test Session. A significant incident may include events such as failure of the Online Observation system, driver performance issues, or a data breach.

- Particularly in the case in which the system is down or Proctors are unavailable for a Test Session, the Test Sponsor, Online Observation Provider, and any other vendors involved in the Test Session, should have an agreed upon action plan. This may include proactive outreach to Test Takers and offers to reschedule the Test Session at no additional charge.

6.6.2 The Online Observation Provider shall provide the Proctor with the capability to interact with the Test Taker in real time to administer the Test, including the capability to provide any instructions and to bring noncompliant testing environments into compliance.

- The Online Observation Provider may wish to assist the Test Sponsor in identifying and defining what is considered a “noncompliant” environment, and the appropriate responses to take during the Test Session. Some Test Sponsors may decide to not launch the Test if the environment cannot be brought into compliance, while others may wish the Online Proctor to note the Irregularity but continue to launch the Test. The Online Observation Provider or the entity providing the Proctors should consider providing scripts and troubleshooting protocols to Proctors. This can help ensure consistency when interacting with Test Takers.

6.6.3 Before the start of the Test Session, the Online Observation Provider shall make its Terms of Service publicly available to Test Takers.

- The Online Observation Provider can make these terms available on its primary website, in the form of an End User License Agreement or by incorporating this information into the testing process and having a click-through agreement prior to the Test that a Test Taker must accept before continuing to the Test.

6.6.4 Prior to launching the Test, the entity providing the Proctor shall instruct the Proctor to implement the Test Taker authentication requirements provided by the Test Sponsor.

- At this point in the process, the Online Observation Provider or its technology ideally should notify the Test Taker that Online Observation has started.
- As noted above, the Test Sponsor and the entity providing the Proctors should agree upon any required Test Taker authentication methods. The parties should also agree upon the protocols to be followed if a Test Taker cannot be authenticated by the Proctor, as those will vary. Some Test Sponsors may prefer to continue to the Test and require that the Proctor file an Irregularity Report; others may prefer to not launch the Test and to instruct the Test Taker to reschedule the Test Session.

6.6.5 Prior to the launch of the test, the Online Observation Provider shall require the Test Taker to ensure any equipment necessary for the Test Session is compatible with the Online Observation Provider’s technology and in working order.

- The Online Observation Provider may wish to have an automated system compatibility check that determines whether the Test Taker’s bandwidth and other equipment, such as the microphone and camera, are acceptable and working for the Test Session. In addition, the Online Observation Provider may conduct a scan for additional monitors or virtual machines at this time.

- If the Online Observation event requires installation of monitoring or other software on the Test Taker's device, the monitoring software should only be active during the Test and should not collect data at other times. The software should be capable of being uninstalled after the Test.
- If the Test Taker's equipment is not compatible with the Online Observation Provider's technology and cannot be addressed through troubleshooting protocols, the Proctor should be provided an outline for assisting the Test Taker with what to do next. For example, the Proctor might suggest that the Test Taker switch computers or reschedule the Test.

6.6.6 The Online Observation Provider shall provide information to Test Takers concerning the tools available for communication between the Proctor and the Test Taker.

- The Online Observation Provider may want to make this information visible on the Test Taker's computer screen during the Test Session. In addition, a Proctor could provide the Test Taker with an overview of how to contact the Proctor during the Test, such as by live chat. The entity providing the Proctor should develop scripts for Proctors to follow when communicating with the Test Taker regarding available communication tools. There may be instances where differing language skills or accents make it difficult for a Proctor and Test Taker to understand one another. If that is the case, text chat can be a useful tool in promoting understanding.

6.6.7 The Online Observation Provider shall provide information to the Test Taker concerning the process for technical or first level support.

- The Online Observation Provider should provide this information on its website and on the Test Taker screen while the Online Observation Provider software is running. In addition, the entity providing the Proctors can develop scripts to be used by the Proctor to follow when interacting with the Test Taker. Technical or first level support personnel should also be provided with scripts and common issue resolution protocols to help address Test Taker issues promptly and consistently.

6.6.8 The Online Observation Provider or the Proctor shall inform the Test Taker of the specific environmental requirements for the Online Test.

- The entity providing the Proctor should provide defined scripts for the Proctor to follow when describing the environmental requirements to the Test Taker. This may include, as an example, the need to ensure that unauthorized individuals do not enter the testing environment.

6.6.9 The Proctor shall review the Test Taker's physical and digital testing environment before and during the Test to identify compliance with Test Sponsor requirements.

- If at any time during the Test the physical or digital environment becomes noncompliant, the Test Sponsor may ask the Proctor to intervene and instruct the Test Taker to bring the environment back into compliance. For example, if a Test Taker attempts to access a book but such use is not authorized by the Test Sponsor, the Proctor will have been informed by

the Test Sponsor to intervene and require that the book be removed from the Test Taker's desk.

- If intervention is required by the Test Sponsor, the entity providing the Proctor should provide the Proctor with protocols for intervening if a Test Taker's physical or digital testing environment is noncompliant and suggested corrective actions the Test Taker may take to bring the environment back into compliance. If corrective action is not possible, the Proctor should know whether the Test Sponsor wants the Test Session to continue or to be terminated. The Proctor should document any Irregularity and the corrective actions attempted or taken.
- If prior to or during the Test Session it is necessary for the Test Taker to use different equipment, the Online Observation Provider should conduct an additional equipment check on the new device(s) prior to launching or re-launching the Test Taker's access to the Test.

6.6.10 Once the Test is launched, the Proctor shall observe the Test Taker and the environment and report on any potential Irregularities.

- The Proctor should be active and engaged in monitoring the Test Taker. The Proctor should record any Irregularities by flagging or otherwise noting concerns in a report to the Test Sponsor. Examples of rules commonly required by a Test Sponsor may include:
 - Test Taker must clear workspace and the surrounding area prior to launch of the Test;
 - Test Taker may not use dual monitors;
 - Test Taker must be connected to a power source;
 - Test Taker may not have access to phones;
 - Test Taker may not wear ear plugs or headphones;
 - Test Taker must be alone in the room;
 - Test Taker is not permitted to talk or read aloud after the Test Session begins;
 - Test Taker's webcam, speakers, and microphone must remain on throughout the Test; and
 - Test Taker must stay in view of the webcam for the duration of the Test.
- The Test Sponsor may request regional differences in instructions to address localization needs.

6.6.11 The Proctor shall follow the Test Sponsor's requirements concerning intervening in a Test Session in the event of a potential or confirmed Irregularity.

- At a minimum, any suspected Irregularity should be monitored and noted in a report to the Test Sponsor. The Proctor should follow the Test Sponsor's protocols for intervening, if required.

6.6.12 At the end of the Online Observation session, the Online Observation Provider shall:

- a) Remove or provide instructions to remove any temporary authorized files on the local systems used by the Proctor for the purposes of Online Observation;
- b) Provide secure and timely reports of Test Session data to the Test Sponsor;
- c) Make additional information regarding any Irregularity available to a Test Sponsor upon request; and
- d) Retain Online Observation Test Session data in accordance with Test Sponsor agreements.

- The Proctor or system should check that the Test Session is closed for security purposes and, if that has not occurred, report it as an Irregularity. Note, however, that the ability to conduct this check is dependent on the technical integration between the driver provided by the Technology-Based Test Delivery Provider and the Online Observation system and thus may not be available in all instances.
- The system should indicate to the Test Taker that visual and audio recording has stopped. Ideally, the system should automatically remove any temporary authorized files on the local systems used by the Test Taker during the Test Session.
- The Online Observation Provider should periodically report data to Test Sponsors. Common data provided to Test Sponsors include Tests completed, materials removed, the number or percentage of active interventions, and suspected or confirmed incidents of rule violations.
- The Online Observation Provider should periodically conduct reviews of incidents to determine whether other activities can be taken to mitigate against future events. To the extent incidents are related to Online Proctor activities, this may include additional training of staff and performance reviews.

B. Online Observation of Tests without a Proctor

7 Test Sponsor Requirements and Best Practices for the Online Observation of Tests without a Proctor

Technology can be used to preserve a record of a Test Session for human review after the Test Session has concluded. This can take several different forms, including:

- Using a camera and microphone to observe and record the video and audio from a Test Session and making that recording available for later human review;
- Using a camera and microphone to observe and record the Test Session along with using artificial intelligence to report potential Irregularities, where both the record and report of Irregularities can be made available for later human review;
- Using a Launcher to authenticate the Test Taker and then, after authentication and the start of the Test, the Launcher will leave the Test Session and technology will be used to observe and record the remainder of the Test Session;
- Using a Launcher to authenticate the Test Taker and ensure the physical environment meets Test Sponsor requirements; once those activities are complete the Launcher will start the Test and leave the Test Session. The remainder of the Test Session may or may not be observed or recorded.

This type of Online Observation creates different vulnerabilities in the Test administration process compared to either in-person proctoring or Online Observation of Tests with a Proctor. To adequately incorporate it into a testing program, Test Sponsors should holistically consider a variety of aspects concerning the Test, including test design and length, breaks, administration rules, and evidence available for investigation. In addition, if a Test Sponsor offers both in-person and online delivery when implementing the Online Observation of Tests, the Test Sponsor should regularly evaluate its data to ensure there is an equivalent and fair test taker experience across all delivery methods.

The records from any of these types of Online Observation events may be subject to random or routine auditing after the Test Session concludes. Individuals auditing the Test Session may be provided by the Online Observation Provider, the Test Sponsor, or an authorized third party.

The following clauses set forth Test Sponsor responsibilities related to the Online Observation of Tests without a Proctor with specific focus on Test administration and post-administration. The term “Online Observation” may be used interchangeably with “Online Observation of Tests without a Proctor” throughout Section B of these standards.

7.1 Test Sponsor Policies and Procedures

7.1.1 The Test Sponsor shall develop, implement, and maintain written policies that promote a standardized, secure, and fair Test experience commensurate with the purpose of the Test.

- Test Sponsor policies will vary depending on the assessment purpose and the demographics of the testing population. When considering policies for the Online Observation of Tests without a Proctor, policies typically address Test security, such as the requirements for Test Taker authentication, Test environment requirements, what aids a Test Taker is allowed to use during the Test, and how Irregularities will be documented, reviewed, and resolved.
- The Test Sponsor should include policies that address requirements for the Test Auditor, such as requiring an agreement to keep Test content and other information regarding the Test Session confidential and the desired level of training for Test Auditors.
- Test Sponsor policies often address when and how a Test Sponsor may audit any Test Session record as well as how a Test Taker may challenge a Test score or other decision.
- Test Sponsor policies should also specifically address disability and other accommodations or exemptions available for Tests delivered using Online Observation. The Test Sponsor should document the process and timeline for requesting disability-related accommodations in locations where the Test Taker can easily access the information prior to enrolling in the Test. The Test Sponsor should ensure that the information is available in an accessible format, such as following the W3C guidelines if the information is posted on a website.⁷ Policies related to special accommodations should be integrated into training documents and Test Session scripts.
- Where feasible, it is also good practice to respect religious or cultural practices of Test Takers. For example, the Test Sponsor may permit a Test Taker to wear head scarves or other head coverings during the Test Session if head coverings are required by the Test Taker's religion.
- Test Sponsors should communicate relevant policies, and any exceptions to the Online Observation Provider. To gauge compliance with Test Sponsor policies, it is recommended that Test Sponsors regularly undergo an internal policy and procedures review as it applies to the Online Observation of Tests without a Proctor. Each organization should define the timeframe for regularly undertaking a review and the policy and process for such review. If AI or biometrics are being used, the AI or biometric algorithmics, evidence to support application across demographic groups, and related policies may need to be reviewed more frequently.

7.1.2 The Test Sponsor shall develop, implement, and maintain written policies regarding the use of testing aids during a Test Session.

- Testing aids include external calculators, erasable white boards, scratch paper, textbooks and other materials as well as integrated calculators, highlighters, and magnifying tools approved

⁷ See *Web Content Accessibility Guidelines, (Version 2.1)*, adopted June 5, 2018, <http://www.w3.org/TR/2018/REC-WCAG21-2018-6-5>. Additional recommendations are found In the Editor's Draft, dated Aug. 9, 2018, and in a Working Draft version 3.0, dated December 2021; an Editor's Draft, dated July 2022, is also available and contains four types of tests to determine whether content accessibility recommendations are met.

by the Test Sponsor. Before approving use of such aids, Test Sponsors should be mindful of the limited ability to inspect and observe testing aids at all times during the Test Session.

7.1.3 The Test Sponsor shall develop, implement, and maintain written policies to protect the integrity of the testing process and testing assets before, during, and after the administration of a Test.

- Common policies for protecting the integrity of the testing process may include rules prohibiting scratch paper, pens, food, or smoking materials in the testing space.

7.1.4 The Test Sponsor shall develop, implement, and maintain written policies that control the physical testing environment to minimize test security threats during a Test.

- One of the advantages of delivering a Test using Online Observation is the flexibility to provide Test Takers an option to test outside of a test center while still providing appropriate Test security. Test environment requirements may address, for example, the Test Taker's person (such as requiring that a Test Taker roll up their shirt sleeves to demonstrate they are not wearing a watch), that the Test Taker be alone in the room, or that the testing area be free of unauthorized materials. Descriptions of the types of suitable testing locations (such as at home or in a library), and the types of unsuitable testing locations (such as a coffee house or inside a vehicle) may also be provided. Test Sponsors should balance the need to provide access to the Test with the need to administer the Test in a secure environment. For example, it may be appropriate to provide some flexibility for Test Takers who are minors, or for Test Takers who are testing in a home environment where disruptions by a family member or pet may occur during the administration of the Test.
- Where there is no Launcher evaluating the environment prior to the launch of the Test, Test Sponsors should be aware that they may be ceding the ability to enforce their Test environment requirements until after the Test Session is completed. In those circumstances, there may be security issues that are not caught or addressed until after the fact. To address that vulnerability, some Test Sponsors choose to use an individual to check-in the Test Taker prior to launch of the Test. The Test Taker may be required to conduct a room scan and remove unauthorized materials from the Test environment prior to the launch of the Test.
- AI may be used to identify noncompliant Test environments and prohibit a Test Taker from launching a Test until the environment is brought into compliance. Note, however, that in addition to requiring significant sophistication from the AI, there are also legal and regulatory requirements around the globe that may require a human to review an AI "decision" that determines not to launch a Test based on an AI indicator.

7.1.5 The Test Sponsor shall develop, implement, and maintain written policies to manage the digital testing environment and to control for Test security threats during the Online Observation of Tests.

- Examples of digital testing environment requirements may include compatible camera technology, microphone, software, or installation of proprietary web browsers, browser extensions, or plug-ins. The Test Sponsor should provide public facing information regarding any requirements for the digital testing environment in a manner that can be easily accessed

by Test Takers. The more a Test Taker can do in advance to prepare the digital testing environment, the less likely an incident will arise during the launch or administration of the Test Session that could pose a threat to Test security or to the administration of the Test.

7.1.6 The Test Sponsor shall develop, implement, and maintain written policies regarding the requirements to authenticate the Test Taker before and during the Test.

- The requirements for Test Taker authentication should be commensurate with the risks associated with any particular Test. For example, a lower stakes Test may allow Test Taker self-identification or display of a school identification card that includes a photo, while a higher stakes Test may require the Test Taker to use government-issued identification card or even use of biometrics. To ensure Test Takers are prepared to present any required identification information and to respect the privacy rights of Test Takers, Test Sponsors should provide public facing information regarding Test Taker identification requirements, including the data collected, its purpose, and where it is stored.
- Test Sponsor policies related to Test Taker authentication should be integrated into Online Observation Provider training documents and Test Session scripts for Launchers and Auditors.
- Biometric Data may be used during the Test Taker authentication process. If the Test Taker is authenticated using an automated process incorporating Biometric Data, the Test Sponsor should require human reviewers to verify rejections received from the automated process.
- From a user experience, it may be preferable to allow the Test Taker to leverage the Technology-Based Test Delivery Provider's login/SSO/IMS standard to avoid requiring the Test Taker to maintain separate registration and login information from the Technology-Based Test Delivery Provider's platform. Test Sponsors should seek to ensure that the security for accessing the platform is sufficient for the stakes of the Test.

7.1.7 The Test Sponsor shall develop, implement, and maintain written policies regarding authorized and unauthorized Test Taker breaks during an Online Test.

- The Test Sponsor should publish policies on how authorized and unauthorized breaks will be managed. While many programs allow for scheduled breaks, there may be unscheduled breaks that are still permitted by the Test Sponsor. For example, a nursing mother may need an unscheduled break to breastfeed or express breast milk. The Test Sponsor should decide in advance how it wants to manage a variety of unscheduled break needs and communicate its acceptable options to the Online Test Provider. The Test Sponsor's policies should be clear on the circumstances in which break times will count against total allotted Test time and whether a Test Taker is allowed to revisit Test questions after returning from a break. Policies should also be clear on whether the Test Taker will need to display identification, via camera or some other means, upon return from break.

7.1.8 The Test Sponsor shall develop, implement, and maintain a written plan that specifically addresses the risks and Irregularities that may arise when using the Online Observation of Tests without a Proctor.

- As with any Test delivery method, the Test Sponsor should have in place a written plan that addresses key risks and Irregularities associated with a Test. There are risks and Irregularities

that are unique to the Online Observation of Tests that should be addressed, such as interruptions from children, dogs barking, doorbells ringing, and technology disruptions. The Test Sponsor should consider that a Proctor will not be online during these events and thus, the ability to remediate may be limited during the Test Session. Thus, the Test Sponsor's written response plan should clearly address how these incidents will be handled by the Test Sponsor after the Test Session.

- The written plan should include the investigation process and evidence to be collected and reviewed. For example, in the event of a rule violation, the Test video, indicators of possible Irregularities, and Test Auditor notes should be reviewed prior to making an outcome determination.
- Depending on the level of the incident or Irregularities, the written plan should also include expected notice and response times in line with level of urgency and threat to Test integrity or Test Taker privacy. In addition, the Test Sponsor and Online Observation Provider should identify personnel to respond to incidents or Irregularities that align with the severity of the incident or Irregularity.
- Test Sponsors should regularly review and update their written plans to ensure they are current.

7.1.9 The Test Sponsor shall develop, implement, and maintain written policies and procedures for responding to noncompliant physical or digital environments, noncompliant identification, and unauthorized Test Taker behavior during an Online Test.

- The Test Sponsor should bear in mind that many of these incidents or Irregularities will need to be addressed after the Test Session.

7.1.10 The Test Sponsor shall develop, implement, and maintain written processes for addressing the use of algorithmic decision-making, such as the use of AI during the Online Observation of Tests without a Proctor. When a negative outcome is recommended by AI during the Online Observation process, the Test Sponsor or its agent shall engage in human review at a minimum.

- The Test Sponsor should use a human to review and validate the Online Observation Provider's data suggesting that an Irregularity may have occurred.

7.2 Test Sponsor Privacy Policies and Best Practices Related to Online Observation

7.2.1 The Test Sponsor shall develop, implement, and maintain written policies and procedures to protect Personal Information, including Sensitive Personal Information, captured during the Online Observation process.

- The Test Sponsors should develop written policies related to securing facilities and systems (such as software, platforms, applications), training personnel, data privacy and protection, data retention, and data destruction.
- Because the laws and regulations protecting Test Taker information can vary by country and state, the best practice is to be familiar with applicable laws and statutes and to treat all

Personal Information with care. The Test Sponsors should specify any data protection standards to which it adheres.

- The Test Sponsor should review its privacy policies and procedures on a regular basis to ensure they are current, clearly written, transparent, and compliant with applicable privacy laws and regulations.
- The Test Sponsor should also ensure that the Online Observation Provider has similar documentation available concerning the protection of Personal Information.

7.2.2 The Test Sponsor shall Process only the minimum amount of Personal Information needed for the functioning, integrity, or security of the Test and the administration of the Test.

- The Test Sponsor should audit the data it collects and identify the purpose and use for the data collected.⁸ The Test Sponsor should collaborate with the Online Observation Provider to identify the type of data needed to observe the Test, report Irregularities, and provide score reports. If the Test Sponsor determines it wants to Process Personal Information for research, it should establish procedures by which it anonymizes that data so that Test Takers' Personal Information is not unnecessarily retained for such purpose(s).

7.2.3 The Test Sponsor shall document the types of Test Taker Personal Information Processed during the testing process and conduct an inventory of that data, including where it is located and in what systems or databases it is processed or stored.

- The Test Sponsor should identify the location of Personal Information, where it is hosted, with whom it is shared, and whether data is transferred across borders.
- The Test Sponsor should contractually require that any third parties used in the testing process, including the Online Observation Provider, accept substantially similar requirements covering their work on behalf of the Controller. Further, the Processor must require the same obligations of any Sub-Processor(s).

7.2.4 The Test Sponsor shall identify any Personal Information that is considered "sensitive" under the laws or regulations of jurisdictions in which its Tests are delivered and adopt appropriate procedures for Processing that data.

- In some jurisdictions, certain data such as children's data, biometric data, health data, or data that indicates the race or ethnicity of the Test Taker needs special protection or imposes additional requirements on the Controller if it is collected that may affect how the Processor handles its Processing. The Test Sponsor should identify such Sensitive Personal Information and ensure it is appropriately protected during Processing.

7.2.5 The Test Sponsor shall identify the purpose(s) for which Test Taker Personal Information is Processed during Testing and clearly provide that information to Test Takers in a transparent manner.

⁸ Given evolving privacy laws and regulations, a Test Sponsor should evaluate its need for specific Personal Information. The principle of Data Minimization and Purpose Limitation should guide the Test Sponsor in this evaluation to limit the amount of personal information collected, processed, and stored, thereby limiting the organization's risk exposure and legal liability.

- Examples of purpose include collecting Personal Information for the purpose of Test Taker authentication or to report scores following the conclusion of the Test.

7.2.6 The Test Sponsor shall limit its use of Personal Information to the stated purpose(s) and shall ensure the Online Observation Provider and any Sub-Processor also limit use of Personal Information to the stated purpose(s).

- If the Test Sponsor uses Test Taker Personal Information for other purposes, those new purposes must be disclosed to the Test Taker in a separate notice and meet any jurisdictional legal approvals and requirements.

7.2.7 The Test Sponsor shall have a written agreement with any Processor that specifically identifies the services the Processor is to provide, including its responsibilities regarding Personal Information, information security, and any cross-border data transfers.

7.2.8 The Test Sponsor shall document in writing how long different types of Personal Information are retained. After the retention period, or in the event the Test Sponsor stops using a Processor, the Test Sponsor or its agents shall promptly and irrevocably destroy the data or engage in Data Anonymization.

- The Test Sponsor should establish a time period for each type of Personal Information that is the minimum time necessary to hold such data. Some types of data, such as copies of government-issued identity documents, may be retained for less time than other less sensitive data.
- Technical measures should be used to ensure the data destruction or Data Anonymization is irrevocable.

7.2.9 The Test Sponsor, as the Data Controller, shall publish a publicly accessible privacy policy, which shall include processes for how Test Takers can exercise their rights related to their Personal Information.

- This information should include how Test Takers can access or receive a copy of their Personal Information, processes for how Test Takers can request revisions or deletion of their Personal Information, and any circumstances under which such requests may be denied.
- Test Sponsors may deny requests for revision or deletion for legitimate reasons. For example, a Test Sponsor may deny a Test Taker's request to delete Personal information, such as a Test Taker's video, if the information needs to be retained for a legitimate test security reason, such as an investigation of proxy testing.
- Test Takers' rights are determined by applicable laws and regulations.

7.2.10 The Test Sponsor shall have written policies and procedures related to Test administration that require technological and organizational security measures to be in place to protect Personal Information from destruction, loss, alteration, unauthorized disclosure, unauthorized access, and unauthorized Processing, including:

- a) Requiring Test Taker's Personal Information to be encrypted at rest and encrypted or otherwise securely protected in transit;

- b) Limiting access to Personal Information to only those individuals whose duties require such access; and
- c) Requiring that Personal Information collected during the Test Session be returned, destroyed, or Anonymized after the retention period or at the termination of any vendor agreement.

- Test Sponsors should be familiar with and follow technical practices for ensuring the confidentiality, integrity, and availability of Personal Information. For example, the Test Sponsor should restrict access to Personal Information to only authorized individuals, following the principle of least privilege when it pertains to user access. The Test Sponsor should maintain policies regarding role-based access and permitted activities, such as “read only,” and be familiar with applicable information security standards.
- Test Sponsors should follow the principles of Privacy by Design and Privacy by Default in their process and system design. Privacy by Design and Default is an approach to systems development that requires data protection be considered throughout the development process. These terms may have specific meanings in different jurisdictions. For example, in some jurisdictions these concepts include not only the development of systems but also Processing activities.
- The Test Sponsor should conduct regular internal security reviews to ensure the appropriate protection of Personal Information.

7.2.11 The Test Sponsor shall provide annual training in data privacy and information security to its personnel with authorized access to Test Taker Personal Information. The Test Sponsor shall maintain evidence and records of the training.

- The Test Sponsor should provide training in accordance with applicable regulations, such as the Family Educational Rights and Privacy Act (“FERPA”) in the United States, the Personal Information Privacy Law (“PIPL”) in China, or the General Data Protection Regulation (“GDPR”) in the European Union. Training should include requirements for categorizing, accessing, and protecting sensitive data and personal information, as well as the legal requirements of confidentiality and the importance of maintaining the chain of custody documents.
- Employee acknowledgments for protecting Personal Information should be a component of annual privacy training. The Test Sponsor should periodically assess personnel to check their understanding of such training.

7.3 Biometrics and Artificial Intelligence.

Biometric technology can be used to improve upon the accuracy of human verification of identity. For example, an identity can be established from a biometric capture against an identity document, and then used to assure that a Test Taker remains the same individual throughout the testing process. This identification could occur using facial recognition, fingerprints, iris scans, or other physical characteristics that, when independent or pieced together, can be used to identify an individual against a claimed identity.

Laws regulating the governing the Processing of Biometric Data vary across regions, and new laws and regulations continue to be enacted. A Test Sponsor should consider jurisdiction(s) in which it operates to fully appreciate the rights and obligations of the parties involved in collecting and Processing Biometric Data. For example, under GDPR Biometric Data are considered sensitive or specially protected data that requires heightened protection, including express consent by the individual with the right to withdraw consent at any time. In some jurisdictions, where a photograph is used to confirm Test Taker identification, the photograph may be considered Biometric Data. Given the sensitivity and strict treatment of Biometric Data in the EU, Test Sponsors delivering tests in Europe may wish to provide other options, disable use of Biometric Data, or otherwise ensure that Test Takers can choose not to provide Biometric Data without adverse consequences.

AI systems and processes rely upon algorithms that can predict patterns in data. AI systems can be used in multiple ways during the Online Observation of Tests, including identifying aberrant Test Taker or Proctor behaviors based on video or audio data, or determining if other Irregularities occur in the testing process or environment that can be identified for human review.

While AI systems and processes can help augment human observations, AI can result in and perpetuate bias. Three categories of bias have been identified: algorithmic prejudice (which arises when there are correlations between protected features and other factors); negative legacy bias (which stems from bias in the training data); and underestimation (which occurs when the data used to train the system is imbalanced, resulting in bias against a defined class). Because of the potential for bias and discrimination when implementing AI, use of AI in testing has come under additional scrutiny from the public and from regulators. Laws regulating the use of AI are continuing to evolve and expand around the world. To remain up to date, Test Sponsors should regularly reference the laws and regulations in the localities in which their Test Takers are located and where their Tests are administered for guidance on use of AI.

7.3.1 If Biometric Data are captured during the Test administration process, the Test Sponsor shall ensure the Biometric Data are used for only the stated purpose and any related security measures and retention periods for Biometric Data are followed.

- Test Sponsors should regularly monitor the use of any Biometric Data and remediate if bias or discrimination is found or likely to occur.
- Test Sponsors should request the Online Observation Provider to submit bias or discrimination evidence regarding the use of Biometric Data and require the Online Observation Provider to monitor the tool on an ongoing basis to ensure any bias or discrimination remains limited and mitigated.

7.3.2 The Test Sponsor shall provide written notice to Test Takers regarding the Processing of Biometric Data during the Test administration process, how the Biometric Data will be used, and the retention period for the Biometric Data.

- Notice provided by the Test Sponsor should clearly describe the purpose of Processing Biometric Data. For example, Biometric Data may be used for Test Taker authentication or security of the Test and Test Session. Notice may also include explanations of how reference information was obtained, how the sample/claim information was obtained, the basic chain of Biometric Data Processing (detection, qualification, template generation, matching, decision), cooperative use expectations, and fallback processes.
- In addition, in many jurisdictions, Test Sponsors must also obtain express written consent from Test Takers before Processing Biometric Data and allow the Test Taker to withdraw their consent at any time unless there is another legal ground for Processing Biometric Data such as applicable that allows its continued use.

7.3.3 If Artificial Intelligence is used during the Test administration process to identify an Irregularity, the Test Sponsor shall require evidence that the Artificial Intelligence has been trained and tested to mitigate the potential for bias or discrimination.

- It is important for Test Sponsors to evaluate and monitor the AI tools utilized in Online Observation and limit or mitigate any bias. Monitoring should occur on an on-going basis, as bias could be introduced over time based on the data experienced by the algorithm. As noted in the introduction, bias evidence may describe the documentation of metadata measured and indicating how bias was assessed, the measures of inequity in training or testing data, the methods used to mitigate data inequity (architectural or training), measures taken to mitigate group bias, especially in the data labelling phase, and any measures of inequity in system performance.

7.3.4 The Test Sponsor shall provide notice to Test Takers regarding the use of AI or automated decision-making employed during the Test administration process.

- Test Sponsors shall disclose any use of AI or automated decision-making that has the potential for a serious impact on the individual as well as how Test Takers can appeal a negative decision to a human reviewer. This requirement does not require a Test Sponsor to disclose its Intellectual Property or Intellectual Property rights or provide such details that a Test Taker can work around security but should include a high-level explanation of the use of automated decision-making or AI employed during the Test administration process to inform Test Takers about how such technology is used.

7.3.5 If AI or automated decision-making tools are used during the Test administration process to identify suspected Irregularities, the Test Sponsor shall develop processes that enable human review of any decisions made because of using AI or automated decision-making tools during the Online Observation process.

- Test Sponsors are required to disclose any automated decision, whether or not rendered by AI, that has the potential for serious impact on an individual and the process for appealing that decision to a human reviewer. The Test Sponsor should enable human review or audit of any data associated with an Irregularity indicator generated by AI, whether initially or through escalation to human review. While a Test Sponsor can delegate the responsibility to review

data generated by AI to the Online Observation Provider, final adjudication of a decision must remain with the Test Sponsor.

7.4 Pre-Contracting and Contracting Considerations with the Online Observation Provider

The business and contracting structure for delivering a Test using Online Observation may vary. For example, a Test Sponsor may work directly with an Online Observation Provider or may work with a Technology-Based Test Delivery Provider who also offers Online Observation. This section is intended to address both scenarios.

7.4.1 Prior to entering into an agreement for the Online Observation of Tests without a Proctor, the Test Sponsor shall conduct due diligence to understand the business structure of the entity providing the Online Observation services and obtain information about its technology, operations, policies, and practices.

- Pre-contracting due diligence is important to help the parties better understand the others' needs, align expectations, and come to a clear agreement as to their respective responsibilities. It is common for both parties to share information during this process. It is recommended that a mutual non-disclosure agreement be in place prior to sharing confidential or sensitive business information.
- During the pre-contracting phase, the Test Sponsor should share information with and obtain information from the entity providing the Online Observation services to enable all parties to align their respective responsibilities and expectations in providing services to Test Takers.
- The Test Sponsor should communicate to the Online Observation Provider its requirements regarding data privacy, accommodations, testing environment, Test Taker identification, and security measures.
- To help ensure a positive Test Taker experience, the Test Sponsor should further share information about the various systems involved in the testing process so the parties can better understand how those systems will integrate with the Online Observation services. For example, other systems may include Learning Management Systems, Learning Tools Interoperability (LTI), Application Programming Interface (API) integrations, or Technology-Based Test Delivery integrations. In addition, Test Sponsors should ask about how the Online Observation Provider collects feedback from Test Takers regarding their experience. In addition, Test Sponsors should ask what information the Test Sponsor will need to provide for each Test Session and in what format the information will be shared.
- Test Sponsors should be prepared to share additional information with the Online Observation Provider if requested during this pre-contracting stage. For example, the Test Sponsor should be prepared to share information concerning its corporate structure and whether it is currently delivering Tests using Online or In-Person Proctors.
- During due diligence, it is important for the Test Sponsor to understand the business structure and financial position of the entity or entities providing the Online Observation services and Processing any Test Taker data. This will enable the Test Sponsor to better understand the responsibilities of each party and ensure the correct party or parties are included in the agreement.

- The Test Sponsor's due diligence should include the Online Observation Provider's policies and practices related to Processing Test Taker Personal Information. Such due diligence may include a privacy risk assessment by the Test Sponsor, with assistance from the Online Observation Provider, to assess the impact the Online Observation Provider's procedures may have on Test Sponsor's ability to meet applicable privacy laws and regulations. The Test Sponsor should ask the contracting entity to define the geographical locations in which Test Taker Personal Information is stored or if it is moved across territorial boundaries by the Online Observation Provider or the Technology-Based Test Delivery Provider. This will help the Test Sponsor to properly include contractual obligations in the agreement to protect Test Taker Personal Information and confidential data. Similarly, the Test Sponsor should inquire regarding the contracting entity's ability to securely collect, process, and store Test Taker Personal Information and other confidential data.
- The Test Sponsor should seek to understand from the Online Observation Provider the specific technical interactions of its methodology, such as use of collaboration technology, browser plug-ins, browser extensions, or client applications (.exe or dmg file types). The Test Sponsor should also request information regarding protocols, procedures, and tools used during the Test Session to observe the Test Taker and take actions either before or during launching the Test to ensure they are consistent with the Test Sponsor's written policies. For example, the Test Sponsor should inquire whether the Online Observation Provider can use technology to prevent the Test Taker from gaining access to information outside the testing environment and if it uses or can offer algorithmic methods to monitor Test Takers and identify potential Irregularities.
- The Test Sponsor may also desire information concerning Launcher language capabilities, communication skills, and training. It should also seek additional information regarding the requirements for Launcher and Auditor equipment, such as the minimum screen sizes for Launchers and Auditors, the Launcher to Test Taker ratios available, and the security measures required for Launcher and Auditor equipment.
- The Test Sponsor should ascertain from the Online Observation Provider the disaster recovery and business continuity plans and redundancies in place to address emergency situations that may occur at the Online Observation Provider's main site(s) or in the event of technological attempts to disrupt service. These plans should also ensure confidentiality, data security, and data integrity in the event of an emergency. This may include but not be limited to disruption of a key service or main site(s).

<p>7.4.2 The Test Sponsor shall enter into a written agreement with the provider of Online Observation services.</p>

- As noted above, this agreement may be directly with the Online Observation Provider or with a Technology-Based Test Delivery Provider who then enters into a separate agreement with the Online Observation Provider. The agreement(s) should address the business arrangement between the parties including, but not limited to, the following topics as they relate to the Online Observation of Tests:

- Test Session requirements, including Test Sponsor specifications concerning Test Taker authentication, device and environmental requirements, allowed testing aids, and Test Taker conduct;
 - Security and data privacy requirements, including distinguishing between the responsibilities and liabilities for the Data Controller and Data Processor;
 - Test Taker and Launcher or Auditor technology system requirements and technology protocols to prevent access to unauthorized information;
 - Average Test Taker to Launcher ratios;
 - Launcher and Auditor training and conduct requirements;
 - Support for Test Takers;
 - Reporting and performance metrics;
 - Launcher and Auditor conflict of interest requirements;
 - Audit rights, indemnification, and insurance obligations, if any;
 - Data storage, retention and destruction requirements; and
 - Business continuity and incident response requirements.
- Test Sponsors should communicate with vendors what relationships or situations may constitute a conflict of interest and are required to be reported to the Test Sponsor should they arise.
 - During the term of the contract, the Test Sponsor and contracting entities should conduct periodic meetings to ensure procedural and technical requirements are being met.
 - The Test Sponsor may also wish to specify the Online Observation Provider's requirement to provide software release notes or an accessible change log of software revisions, as well as documented "roll back" processes in the event a new software release is not working as designed.

7.5 Pre-Test Communications with the Test Taker regarding the Online Observation of Tests without a Proctor

7.5.1 The Test Sponsor shall provide publicly accessible information concerning the Online Observation of Tests without a Proctor, including:

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| <ul style="list-style-type: none"> a) the Test Taker's rights and responsibilities, including the hardware and software specifications required for the Test Session and the testing environment requirements the Test Taker is responsible for providing; b) testing day rules, testing protocols, and authorized Test Taker behaviors, including Test Taker Authentication requirements, and whether algorithmic methods, such as AI, are used during the Online Observation process; c) accessibility compliance, including how to apply for accommodation requests; and d) the Test Sponsor's privacy policy. |
|---|
- The Test Sponsor should provide information and guidance to Test Takers in understanding what technical and equipment needs must be met to take the Test, such as a functioning computer, camera, microphone, and acceptable internet connection.
 - The Test Sponsor should offer this information in multiple locations. For example, the Test Sponsor should provide Test Taker technology requirements on its website as well as during

the registration process, or publish the Test rules on their website, display them during the registration process, and summarize them prior to the start of the Test Session.

- Ideally, Test Takers should be given access to this information and the agreement prior to the Test Session to allow time for review.
- Test Sponsors should consider alternative options for accessibility compliance when it comes to test administration. For example, Test Sponsors who require testing at Test Centers may need to offer at home testing with Online Observation to accommodate Test Takers who demonstrate that it is a reasonable accommodation for their disability. In the same way, Test Sponsors who offer a Test using Online Observation may need to accommodate Test Takers at a Test Center if they demonstrate that it is a reasonable accommodation for their disability. Test Sponsors should provide public facing information regarding special accommodations and procedures for requesting such accommodations. Examples of accommodations specific to the Online Observation of Tests with a Proctor may include policies and procedures for extended time, frequent breaks, or permitting a Test Taker to have water in a clear glass on the desk during the Test.
- The Test Sponsor's privacy policy should clearly identify who is the Controller(s) of the Test Taker's Personal Information and how to contact the Controller(s) to raise questions, issues, or concerns, and how to make requests about Personal Information under applicable privacy laws and regulations.

7.5.2 The Test Sponsor shall provide the Test Taker with the opportunity to become familiar with the Online Observation process.

- Because Online Observation may be new to some Test Takers, it is helpful to provide opportunities for the Test Taker to become familiar with the process prior to the Test.
- Ideally, the Test Taker should have the ability to check the hardware and software requirements prior to registering for the Test or prior to a Test Session. In addition, an online tutorial, instructions, or simulated practice test may be offered to assist the Test Taker in becoming familiar with the Online Observation process.
- Where Test Taker accommodations include use of assistive technology, the Test Taker ideally should be allowed to assess the assistive technology, such as closed captioning or screen reader tools, to ensure it works with the Online Observation system. Note, however, that compatibility with the Online Observation system does not ensure compatibility with the Test driver or Test content.

7.5.3 Prior to the Test, the Test Sponsor shall ensure Test Takers agree to the Test rules, the requirements of participating in the Test, and the Online Observation of their Test without a Proctor.

- The agreement should include an acknowledgement that the Test Sponsor has a legal basis for Processing Test Taker Personal Information and capture explicit consent to the collection and Processing of Sensitive Personal Information.
- The agreement should include Test day rules, protocols, and authorized Test Taker behaviors. The agreement should also set forth the Test Taker authentication requirements and nondisclosure obligations. Test Takers should agree not to disclose confidential Test content.

- The agreement should include clear ownership of data and systems, as well as rights for investigation, score or credential suspension or revocation, retest rules, and prosecution.
- The Test Sponsor should obtain the Test Taker's explicit consent to the collection and Processing of their Sensitive Personal Information, such as the capture of Biometric Data or video recordings of their image and the room where they are testing.

7.6 Administration and Post-Administration Activities

7.6.1 The Test Sponsor shall ensure processes are in place for the Online Observation Provider to promptly notify the Test Sponsor in the event of a significant incident, as defined by the Test Sponsor's incident response plan.⁹

- A significant incident may include failure of the Online Observation Provider system or a data breach. A Test Sponsor should consider the service level agreements, such as time to respond or notice requirements, to include in the incident response plan.
- The Test Sponsor should act as defined within its internal policies and procedures when a significant event has been reported.

7.6.2 The Test Sponsor shall review reports and data provided by the Online Observation Provider to identify incidents or Irregularities that warrant additional action by the Test Sponsor.

- Additional data may include Test Launcher or Auditor reports, Irregularity indicators, video or audio recordings, and response strings.

7.6.3 The Test Sponsor shall notify the Online Observation Provider of any data that must be preserved and retained or transmitted to the Test Sponsor for additional action.

- This may include recorded video or audio files from the Test Session and Test Launcher or Auditor notes. Only authorized staff should have access to data collected in response to an Irregularity or other investigation.

⁹ Throughout the Standards, the term "incident response plan" is used to describe how the Online Observation Provider should deal with Test Irregularities. It is important to note that a clear distinction exists between a response for Test Session Irregularities (whether those of a technical or operational nature, such as power outages, computer system failures, or those that may be related to the integrity of a testing event, such as discovery of a proxy test taker, test takers talking to one another, unauthorized discussions with a proctor, unauthorized sharing of test items), as compared with a Test Sponsor or Online Observation Service Provider's response to technical security incidents or data breaches, that impact the security of a data systems or databased, such as unauthorized access to or disclosure of data or compromise of the entity's systems, which may affect the test administration at any time (pre-administration, during test administration, or post-administration). This distinction is consistent with the separate terms as used in the "Guidelines for Technology-Based Assessment" as published by the ATP and the International Test Commission ("ITC") (2022). Indeed, the term "Security Incident Response" is defined in the "Guidelines" as: "Actions taken by a testing organization in response to a security incident using a pre-set written response plan to investigate what happened, determine if a data breach occurred, and any remediation steps that should be taken" (TBA, 2022, page 144). Accordingly, users of the Online Observation Standards need to be careful to distinguish between "Test Irregularities" including a response plan developed by a Test Sponsor and an Online Observation Service Provider to respond to such Test Irregularities, and an Information Security Incident Response Plan developed by an entity to handle investigations and remediations of technical security breaches.

7.6.4 The Test Sponsor shall require confirmation from the Online Observation Provider that it is deleting confidential data and Personal Information in accordance with agreed retention and destruction plans.

- The Test Sponsor should have a data retention policy that sets forth how it is using, storing, and destroying confidential information, such as testing manuals and other business data, and a similar data retention policy for Personal Information, including Sensitive Personal Information. The Online Observation of Tests should be part of those policies.
- The Test Sponsor should work with the Online Observation Provider to ensure the parties' requirements are aligned and require confirmation on a regular basis from the Online Observation Provider that it is providing secure and timely removal of Personal Information from all Online Observation systems, including local systems used by the Launcher, Auditor, and other vendor personnel, in accordance with the Test Sponsor's agreement or instructions.
- The Test Sponsor may desire to regularly audit the Online Observation Provider to ensure adherence to its data retention and destruction policies.

8 Online Observation Provider Requirements and Best Practices for the Online Observation of Tests Without a Proctor

For ease of review, this section will refer to the Online Observation of Tests without a Proctor as the Online Observation of Tests. The following clauses set forth the Online Observation Provider's activities and responsibilities related to the Online Observation of Tests, with specific focus on Test administration and post-administration.

It is not uncommon for the Test Sponsor to contract directly with a Technology-Based Test Delivery Provider who in turn subcontracts with another entity to provide Online Observation services. To the extent the Online Observation Provider is a subcontractor to a Technology-Based Test Delivery Provider, these sections should be adapted accordingly.

As stated in the Introduction, this set of standards and best practices does not apply to the software and services for delivering an online Test. While it is possible that the same organization offers software to both deliver and observe an online Test, these are two distinct activities, and the following clauses focus exclusively on the Online Observation Provider's activities and responsibilities. Online Observation Providers may work with other technology providers to administer a Test. Technology-Based Test Delivery Providers, Test Taker management systems, Test Taker registration systems, voucher systems, and credential management platforms are all examples of additional technologies that may impact the Test Taker experience and should be considered as part of the overall testing process.

8.1 Online Observation Provider Policies and Procedures

8.1.1 The Online Observation Provider shall develop, implement, and maintain written procedures to implement the Online Observation Policies that were mutually agreed upon with the Test Sponsor.

- Typically, these procedures include training for any individuals involved in the check-in or Test audit process, Irregularity reporting, and incident response activities that align with the Test Sponsor requirements.

8.1.2 The Online Observation Provider shall develop, implement, and maintain written procedures to enforce mutually agreed-upon Test Sponsor requirements regarding the use of testing aids during a Test session.

8.1.3 The Online Observation Provider shall develop, implement, and maintain written procedures to implement mutually agreed upon security policies as they relate to the Online Observation of Tests without a Proctor.

- The Online Observation Provider shall develop and implement appropriate written procedures and training to protect the integrity of the testing process and intellectual property assets of the Test Sponsor. All operational staff, support staff, Launchers, and Auditors should understand the Online Observation requirements that may be unique to each Test.
- Security audits should be conducted periodically by both Test Sponsors and Online Observation Providers to confirm the appropriate procedures are routinely followed.

8.1.4 The Online Observation Provider shall develop, implement, and maintain written procedures to implement and enforce mutually agreed upon requirements that control the physical environment to minimize test security threats during the Online Observation process.

- In the event a Launcher is responsible for conducting a scan of the Test Taker environment, the scan should address the risks associated with that Test. The Online Observation Provider should work with the Test Sponsor to develop a process that is appropriate for the use of the Test results and that can be properly implemented using online tools.

8.1.5 The Online Observation Provider shall develop, implement, and maintain written procedures for enforcing mutually agreed upon requirements that manage the digital testing environment and control for Test security threats during the Online Observation process.

- The Online Observation Provider may, for example, monitor the Test Taker device to identify the applications running on the device.

8.1.6 The Online Observation Provider shall develop, implement, and maintain written procedures for enforcing mutually agreed upon requirements to authenticate the Test Taker before and during the Test.

- The Test security measures, including Test Taker authentication, for an Online Test should address the risks associated with that specific Test. The Online Observation Provider should

work closely with the Test Sponsor to develop a process that is appropriate for the use of the Test results and that can be properly implemented using online tools.

- Biometric Data may be used during the Test Taker authentication process. If the Test Taker is authenticated using an automated process incorporating Biometric Data, the Online Observation Provider's process should involve human reviewers to verify rejections received from the automated process. This human review should occur as close to the decision point as possible. The Online Observation Provider should avoid making decisions based on system output without additional human review. If a biometric is used to authenticate the Test Taker and human review is not possible before the launch of the Test, the Test Taker should be allowed to take the Test and the authentication decision can be evaluated after completion of the Test.
- From a user experience, the Online Observation Provider may be asked to build an integration to leverage the Technology-Based Test Delivery Provider's login/SSO/IMS standard to avoid requiring the Test Taker to maintain separate registration and login information from the Technology-Based Test Delivery Provider's platform.

8.1.7 The Online Observation Provider shall develop, implement, and maintain written procedures for enforcing mutually agreed upon requirements regarding authorized and unauthorized Test Taker breaks.

- If the Test Sponsor allows for authorized breaks during specific times in the Test, ideally the Test content should be obscured from view during the authorized break to protect the content. In that case, the Online Observation Provider should have technical capabilities in place to plan for the start and stop of the authorized break. After the break, the technical capabilities should allow for a clear point in proceeding back into the Test. If possible, whatever authentication capabilities were in place to authenticate the individual at the beginning of the Test Session should be given following the authorized break as well.
- If the Test Sponsor allows the Test Taker to also take unplanned breaks, the Online Observation Provider should confirm with the Test Sponsor what type of breaks warrant an Irregularity indicator, whether and what type of breaks count against the timed Test Session, and whether and what type of breaks should result in ending the Test Session, if any.

8.1.8 The Online Observation Provider shall develop, implement, and maintain written procedures to enforce mutually agreed upon policies for responding to and documenting noncompliant physical or digital environments, noncompliant identification, and unauthorized Test Taker behavior.

8.1.9 The Online Observation Provider shall ensure Launchers enforce differing Test Sponsor requirements during Test Sessions.

- Online Observation Providers should train Launchers on any differences across Test Sponsors' requirements and how to handle multiple Test administration rules and procedures. It is ideal if Launchers may be assisted by technology, such as by automating access to rules or auto-highlighting differences from standard procedures. It is considered a best practice for Online

Observation Providers to implement a quality control program that allows for a feedback loop to Launchers to improve performance and support continuous improvement.

8.1.10 The Online Observation Provider shall develop, implement, and maintain written procedures for providing mutually agreed-upon disability and other accommodations, such as religious exceptions, during the Online Observation process.

- Online Observation Providers should only provide those accommodations or exceptions approved by the Test Sponsor.
- Online Observation Providers should assess and update their products and materials to meet current accessibility standards requirements and best practices. Examples of Test Taker accommodations include:
 - Granting extended time to test;
 - Allowing use of chat for communication;
 - Permitting use of screen readers;
 - Permitting a human reader to read out loud instructions and items verbatim;
 - Allowing a scribe to document Test Taker response verbatim;
 - Allowing a personal care assistant (not acting in a role as a reader or scribe) to accompany the Test Taker;
 - Allowing a Test Taker to read questions out loud;
 - Allowing a service dog in the testing room;
 - Allowing additional or off-camera breaks;
 - Permitting the use of medications or oxygen during the Test;
 - Allowing the Test Taker to have stretch breaks on camera;
 - Permitting the Test Taker to perform diabetic testing;
 - Permitting the Test Taker to consume food and beverage during the Test.

8.1.11 The Online Observation Provider shall have written policies and procedures in place to document, record, and store Test Taker's Test Session data in accordance with Test Sponsor agreements.

- Regular reviews and audits should be undertaken to ensure proper enforcement of the collection and retention of Test Session data as agreed between the Test Sponsor and Online Observation Provider terms under the agreement.

8.1.12 Where the Online Observation Provider collects payment for the Test Session, the Online Observation Provider or any third-party collecting payment on their behalf shall ensure its policies and procedures are Payment Card Industry compliant.

- Agreements between the Online Observation Provider and Test Sponsor should outline responsibilities and terms for collection and exchange of payments between Test Takers and the collecting party. A vendor that provides payment systems should provide evidence that its policies, procedures, and systems are Payment Card Industry compliant, if requested.

8.2 Online Observation Provider Privacy Policies and Best Practices

8.2.1 The Online Observation Provider shall develop, implement, and maintain written policies and procedures to protect Personal Information, including Sensitive Personal Information, captured and Processed during the Online Observation process.

- The Online Observation Provider as a Data Processor must follow applicable legal regulations and the instructions provided by the Controller, unless it has agreed to be a Controller or Co-Controller and is subject to those Controller legal requirements.
- As a Controller or Co-Controller, the Online Observation Provider should implement protection measures related to securing facilities, training personnel, and data privacy as well as protection, retention, and destruction.
- Because the laws and regulations protecting Test Taker information can vary by country and state, best practice is to be familiar with applicable laws and statutes and treat all Personal Information with care. The Online Observation Provider should identify any data protection standards to which it adheres.
- The Online Observation Provider should review its privacy policies and procedures on a regular basis to ensure they are current, clearly written, transparent, and compliant with applicable privacy laws and regulations.

8.2.2 The Online Observation Provider shall Process only the minimum amount of Personal Information needed for the functioning, integrity, or security of the Online Observation process.

- Data exchange of Personal Information to and from the Online Observation Provider should only include data needed for the functioning, integrity, or security of the Online Observation process. This may include the integrity and security of the Test, support of the Test Taker, or performance of the Online Observation platform.

8.2.3 The Online Observation Provider and any Sub-Processor shall document the Personal Information Processed during the Online Observation process and conduct an inventory of that data, including where the Personal Information is located and in what systems or databases it is Processed or stored.

- The Online Observation Provider should identify and document the location(s) in which Personal Information is stored by the Online Observation Provider and/or the Sub-Processor, where it is hosted, with whom it is shared, and whether the data is transferred across borders.
- If Personal Information is stored or moved across borders, the Online Observation Provider should obtain documentation stating that the Test Sponsor or other Controller has authorized the transfer and that the data exchange procedures meet applicable legal requirements.
- Processing should align with applicable laws and regulations, as well as Controller instructions. The Online Observation Provider should require that any sub-processors accept substantially similar obligations.

8.2.4 The Online Observation Provider and any Sub-Processor shall identify any Personal Information that is considered “sensitive” under the laws or regulations of jurisdictions in which Test Takers are located during the Test Session and adopt appropriate procedures for Processing that data.

- In some jurisdictions, certain data, such as children’s data, Biometric Data, health data, or data that indicates the race or ethnicity of an individual, needs special protection or imposes additional requirements that may affect how it is Processed. For example, in some jurisdictions, this type of data may be Processed only with the express consent of the Test Taker or other permissible legal basis. The Online Observation Provider should identify any Sensitive Personal Information and appropriately protect it during Processing.

8.2.5 The Online Observation Provider shall maintain and publish a compliant privacy policy that clearly identifies the purpose(s) for which it Processes the Personal Information of users of its products or services.

- The Online Observation Provider must clearly disclose the purpose for which it processes Test Taker Personal Information, which may include providing technical support, improving processes, enhancing the user experience, or improving the technology.
- Example of “purpose” may be collecting Personal Information for the purpose of Test Taker authentication or to ensure the appropriate Test is given to the appropriate Test Taker.

8.2.6 The Online Observation Provider shall limit its use of Personal Information to the stated purpose(s) and ensure any Sub-Processor also limits use of Personal Information to the stated purpose(s).

- If the Test Sponsor uses Test Taker Personal Information for other purposes, those new purposes must be disclosed to the Test Taker in a separate notice and meet any jurisdictional legal approvals and requirements.

8.2.7 The Online Observation Provider shall have a written agreement with the Controller that specifically identifies the services the Online Observation Provider will provide, including the parties’ responsibilities regarding the collection and Processing of Personal Information, information security, and any cross-border data transfers.

8.2.8 The Online Observation Provider shall document in writing how long different types of Personal Information are retained. After the retention period or in the event the Test Sponsor stops using an Online Observation Provider as a Data Processor, the Online Observation Provider shall return, destroy, or anonymize the Personal Information it holds relating to that Test Sponsor per the terms of the agreement between the parties.

- Where the Online Observation Provider is acting as a Processor, it should follow the retention periods required by the Test Sponsor.
- Where the Online Observation Provider is acting as a Controller, it should document in writing how long different types of Personal Information are retained. The time period for retaining each type of Personal Information should be the minimum time necessary to hold that data.

Some types of data, such as copies of government identity documents, can be retained for less time than other less sensitive data.

- Technical measures should be used to ensure the deletion or anonymization of Personal Information is irrevocable. The Test Sponsor may permit the Data Processor to retain data if it has been properly De-identified and cannot be re-identified.

8.2.9 Where the Online Observation Provider is acting as a Processor, it shall have a written policy for coordinating with and following the instructions from the Test Sponsor in the event a Test Taker submits a request to the Online Observation Provider concerning the Test Taker's Personal Information. Where the Online Observation Provider is also a Controller, it shall publish a publicly accessible privacy policy that addresses Test Taker requests regarding Personal Information and any circumstances under which requests may be denied.

- The Online Observation Provider should follow the instructions provided by the Controller for handling Test Taker data requests. For example, the Test Sponsor may instruct the Online Observation Provider to acknowledge receipt of a data request and then forward the request directly to the Controller for decision.
- Where the Online Observation Provider is also a Controller, it should implement processes to address Test Taker's rights related to their Personal Information, including how a Test Taker can access or receive a copy of their Personal Information or request revisions or deletion of their Personal Information, as well as any circumstances under which such requests may be denied. For example, a request to delete Personal Information may be denied if the data needs to be retained for legitimate reasons, such as an investigation.
- Test Taker's rights related to their Personal Information are determined by applicable laws and regulations.

8.2.10 The Online Observation Provider shall have written policies and procedures that require technological and organizational security measures to be in place to protect Personal Information from destruction, loss, alteration, unauthorized disclosure, unauthorized access, and unauthorized Processing, including:

- a) Requiring a Test Taker's Personal Information to be encrypted at rest and encrypted or otherwise securely protected in transit;
 - b) Limiting access to Personal Information to only those individuals whose duties require such access; and
 - c) Requiring that Personal Information collected during the Test Session be returned, destroyed, or anonymized after the retention period or at the termination of the agreement with the Test Sponsor in accordance with Test Sponsor's policies or instructions.
- Online Observation Providers should be familiar with and follow the technical practices for ensuring the confidentiality, integrity, and availability of Personal Information. For example, the Online Observation Provider should restrict access to Personal Information to only authorized individuals, following the principle of least privilege when it pertains to user access. It should also maintain policies regarding role-based access and permitted activities, such as "read only," and be familiar with applicable information security standards.

- Online Observation Providers should follow the principles of Privacy by Design and Privacy by Default in their process and system design. This is an approach to systems development that requires data protection be considered throughout the development process. These terms have specific meanings in different jurisdictions. For example, in some jurisdictions these concepts include not only the development of systems but also Processing activities.
- Online Observation Providers should conduct regular internal security reviews to ensure the appropriate protection of Personal Information.
- Where practical, Personal Information captured during the Online Observation process should be held in a De-identified or Pseudonymized form.

8.2.11 The Online Observation Provider shall provide the Test Taker with the ability to end a Test Session at any time and to remove, deactivate, or uninstall any Online Observation technology placed on the Test Taker's personal device, and make such information publicly available to the Test Taker.

- Removal of the Online Observation technology should return the Test Taker's personal device to its initial state. Removal should not create any security risks on the Test Taker's device.

8.2.12 The Online Observation Provider shall provide annual training in data privacy and information security to its personnel with authorized access to Personal Information. The Online Observation Provider shall maintain evidence and records of the training.

- Data privacy training should be provided to any personnel with access to Personal Information, including but not limited to Launchers and Auditors.
- Training should include applicable regulations, such as FERPA in the United States, PIPL in China, or GDPR in the European Union. Training should also include requirements for categorizing, accessing, and protecting Personal Information and Sensitive Personal Information as well as the legal requirements of confidentiality and the importance of maintaining the chain of custody documents.
- Employee acknowledgments for protecting Personal Information should be a component of annual privacy training. The Online Observation Provider should periodically assess personnel to check their understanding of such training.

8.3 Biometrics and Artificial Intelligence

Biometric technologies can be used to improve upon human verification of identity. For example, an identity can be established from a Biometric capture against an identity document and then used to assure that the Test Taker remains the same individual throughout the Test session. The identification could occur using facial recognition, fingerprints, iris scans, or other physical characteristics that, when independent or pieced together, can be used to identify an individual against a claimed identity.

Laws regulating the governing the Processing of Biometric Data vary across regions, and new laws and regulations continue to be enacted. An Online Observation Provider should consider the jurisdiction(s) in which it operates to fully appreciate the rights and obligations of the parties

involved in collecting and Processing Biometric Data. For example, under GDPR Biometric Data are considered sensitive or specially protected data that requires heightened protection, including express consent by the individual with the right to withdraw consent at any given time. In some jurisdictions where a photograph is used to confirm Test Taker identification, the photograph may be considered Biometric Data. Given the sensitivity and strict treatment of Biometric Data in the EU, Test Sponsors delivering Tests in Europe may wish to provide other options, disable use of Biometric Data, or otherwise ensure that Test Takers can choose not to provide Biometric Data without adverse consequences.

AI systems and processes rely on algorithms that can predict patterns in data. AI systems can be used in multiple ways during the Online Observation of Tests, including identifying aberrant Test Taker or Proctor behaviors based on video or audio data or determining if other Irregularities occur in the testing environment that can be identified for human review.

While AI systems and processes can help augment human observations, AI can result in and perpetuate bias. Three categories of bias have been identified: algorithmic prejudice (which arises when there are correlations between protected features and other factors); negative legacy bias (which stems from bias in the training data); and underestimation (which occurs when the data used to train the system is imbalanced, resulting in bias against a defined class). Because of the potential for bias and discrimination when implementing AI, use of AI in testing has been under additional scrutiny from the public and from regulators. Laws and regulations governing the use of AI are continuing to evolve and expand around the world. To remain up to date, Online Observation Providers should regularly reference the laws and regulations in the localities in which their Test Takers are located as well as those in which they administer Tests for guidance on the use of AI.

8.3.1 If Biometric Data are captured during the Online Observation process, the Online Observation Provider shall ensure the Biometric Data are used only for the stated purpose, any related security measures are in place, and Biometric Data are retained only as long as agreed upon with the Test Sponsor.

- Online Observation Providers should regularly monitor Processing of Biometric Data and remediate if bias or discrimination is found or likely to occur.
- Online Observation Providers should be prepared to provide evidence to Test Sponsors that the Online Observation Provider has monitored the use of Biometric Data and taken steps to mitigate bias or discrimination found, if any. Bias evidence may describe the documentation of metadata measured and indicating how bias was assessed, the measures of inequity in training or testing data, the methods used to mitigate data inequity (architectural or training), measures taken to mitigate group bias, especially in the data labelling phase, and any measures of inequity in system performance.

8.3.2 The Online Observation Provider shall provide written notice to Test Takers regarding the Processing of Biometric Data during the Online Observation process, how the Biometric Data will be used, and the retention period for the Biometric Data.

- The Online Observation Provider is often acting as a Processor and collecting Biometric Data on behalf of the Test Sponsor. In some instances, it may also be acting as a Controller.
- Notice provided by the Online Observation Provider should clearly describe the purpose(s) for collecting Biometric Data. For example, Biometric Data may be used for Test Taker authentication or security of the Test and Test Session. Notice may also include explanations of how reference information was obtained, how the sample/claim information was obtained, the basic chain of Biometric Data Processing (detection, qualification, template generation, matching, decision), cooperative use expectations, and fallback processes.
- In several jurisdictions, the Controller, or the Online Observation Provider if acting on behalf of the Controller, must also obtain express written consent from Test Takers before collecting Biometric Data and allow the Test Taker to withdraw their consent at any time unless there is another legally permissible ground for Processing.

8.3.3 If Artificial Intelligence is used during the Test Session to identify a suspected Irregularity, the Online Observation Provider shall compile evidence that the Artificial Intelligence has been trained and tested to mitigate bias and discrimination.

- The Online Observation Provider should evaluate and monitor AI tools it uses in Online Observation and to limit or mitigate any bias. Monitoring should occur on an ongoing basis, as bias can be introduced over time based on the data experienced by the algorithm. As noted in the Introduction, bias evidence may describe the documentation of meta-data measured and indicating how bias was assessed, the measures of inequity in training or testing data, the methods used to mitigate data inequity (architectural or training), measures taken to mitigate group bias (especially in the data labelling phase), and any measures of inequity in system performance.
- The Online Observation Providers should be prepared to provide evidence to Test Sponsors that it has monitored the use of AI and taken steps to mitigate bias or discrimination found, if any.

8.3.4 If Artificial Intelligence or automated decision-making tools are used during the Online Observation process to identify suspected Irregularities, the Online Observation Provider shall develop processes that enable human review of any decisions made as a result of using AI or automated decision-making tools during the Online Observation process.

- The Test Sponsor shall disclose any automated decision, whether or not rendered by AI, that has the potential for serious impact on an individual and the process for appealing that decision to a human reviewer. The Test Sponsor can delegate this responsibility to the Online Observation provider. Thus, the Online Observation Provider should enable human review or audit of any data associated with an Irregularity indicator generated by AI, whether initially, where feasible, or through escalation to human review. Final adjudication of a decision remains with the Test Sponsor.

8.4 Pre-Contracting and Contracting Considerations with the Test Sponsor or Technology-Based Test Delivery Provider

The business and contracting structure for delivering a Test using Online Observation may vary. For example, an Online Observation Provider may work directly with a Test Sponsor or may work as a subcontractor to a Technology-Based Test Delivery Provider who has entered into a direct agreement with a Test Sponsor. This section is intended to address both scenarios.

8.4.1 Prior to entering into an agreement for the Online Observation of Tests, the Online Observation Provider shall respond to any due diligence requests from the Test Sponsor and seek to understand the Test observation needs of the Test Sponsor as well as its corporate structure.

- Pre-contracting due diligence is important to help the parties better understand the others' needs, align expectations, and come to a clear agreement as to their respective responsibilities. It is common for both parties to share information during this process. It is recommended that a mutual non-disclosure agreement be in place prior to sharing confidential or sensitive business information.
- During the pre-contracting phase, the Online Observation Provider should be prepared to respond to Test Sponsor questions regarding its business structure, financial situation, and business operations, as well as that of any Sub-Processor(s). The information requested may include where the organization is incorporated, where its primary place of business is located, where its Launchers and Auditors are located, and how they are trained. This will enable the parties to align their respective responsibilities and expectations in providing services to Test Takers and ensure the correct parties are subject to the agreement.
- The Online Observation Provider should be prepared to respond to questions about where Test Taker Personal Information is located, its data privacy and security standards, and other relevant policies and procedures. This may also include a request to conduct a privacy risk assessment to better understand the impact the Online Observation Provider's procedures may have on the Test Sponsor's ability to meet applicable privacy laws and regulations. This will help the parties properly include contractual obligations in the agreement to protect Private Information.
- The Online Observation Provider should provide the technical interactions of its software methodology, such as use of collaboration technology, browser plug-ins, browser extensions, or client applications (.exe or dmg file types). It should also provide information regarding the protocols, procedures, and tools used during the Test Session to observe the Test Taker and take actions before or during the Test, as well as any algorithmic or biometric capabilities used by the Online Observation Provider.
- The Online Observation Provider should be prepared to provide information concerning Launchers' language capabilities, communication skills, and training, as well as information regarding the requirements for Launcher and Auditor equipment, such as the minimum screen sizes for Launchers and Auditors, the Launcher to Test Taker ratios available, and the security measures required for Launcher and Auditor equipment.
- In many jurisdictions, Test Sponsors are legally required to provide Test accommodations to individuals with a disability. The Online Observation Provider should be prepared to explain the types of accommodations it can effectively provide. For example, extended time and

additional breaks are common requests for testing accommodations that can be effectively provided and managed during the Online Observation of Tests. In addition, due to religious requirements, some Test Takers may request a Launcher of the same gender conduct a check-in process that includes removal of religious headwear. The Online Observation Provider should be prepared to share with the Test Sponsor the ability to easily accommodate these types of requests.

- The Online Observation Provider should be prepared to respond to questions about its disaster recovery and business continuity processes. The Online Observation Provider should be prepared to make copies of key written policies available to the Test Sponsor upon request.
- This is also an opportunity for the Online Observation Provider to understand the organizational and operational structure of the Test Sponsor and the Test Sponsor's unique needs. For example, it is important to understand the business structure of the entity or entities requesting Online Observation services. This will enable the Online Observation Provider to ensure appropriate parties are included in the agreement.
- In addition, the parties should discuss the testing volume anticipated, length of each Test, and in what format data will be exchanged. Further, Online Observation Providers should inquire regarding the dates or date ranges needed for Test delivery and what Test Sponsor roles need access to the Online Observation data.
- The Online Observation Provider also should ask about the various systems involved in the testing process so the parties can better understand how those systems will integrate with the Online Observation services. For example, other systems may include Learning Management Systems (LMS) or Candidate Management System (CMS) platforms, Learning Tools Interoperability (LTI), Application Programming Interface (API) integrations, or Technology-Based Test Delivery integrations. The Online Observation Provider should also discuss how the parties will collect feedback from Test Takers regarding their experience. In addition, the Online Observation Provider should ask what information the Test Sponsor will provide for each Test Session and in what format the information will be shared. This will help ensure a positive Test Taker experience and secure exchange of data.
- The Online Observation Provider should be prepared to advise the Test Sponsor on Online Observation risks and mitigation strategies. For example, the Online Observation Provider can point out the potential risk of a Test Taker using a cell phone to capture Test content, and the possibility for the Online Observation technology to notify an individual in real time of the incident.

<p>8.4.2 The Online Observation Provider shall enter into a written agreement for Online Observation services with the Test Sponsor.</p>

- As noted above, this agreement may be directly with the Test Sponsor, or with an intermediate such as a Technology-Based Test Delivery Provider who has a separate agreement with the Test Sponsor. The agreement should address the business agreement between the parties, including, but not limited to, the following topics as they relate to the Online Observation of Tests:

- Test Session requirements, including the Test Sponsor’s specifications concerning Test Taker authentication, device and environment requirements, allowed testing aids, and Test Taker conduct;
 - Security and data privacy requirements, including distinguishing between the responsibilities and liabilities for the Data Controller and Data Processor;
 - Test Taker technology system requirements;
 - Online Observation technology protocols to prevent access to unauthorized information;
 - Launcher and Auditor training and Launcher conduct requirements;
 - Support for Test Takers;
 - Online Observation reporting and performance metrics;
 - Launcher assignment and conflict of interest requirements;
 - Audit rights, indemnification, and insurance obligations, if any;
 - Data storage, retention, and destruction requirements; and
 - Business continuity and incident response requirements.
- During the term of the contract, the Online Observation Provider should conduct periodic meetings with the Test Sponsor or Technology-Based Test Delivery Provider to ensure procedural and technical requirements are being met.
 - The Online Observation Provider should be prepared to discuss with the Test Sponsor how release notes or updates to the software will be communicated.

8.5 Pre-Test Communications with the Test Taker regarding Online Observation

8.5.1 The Online Observation Provider shall provide publicly accessible information to the Test Taker, including:

- a) the Test Takers’ rights and responsibilities regarding use of the Online Observation Provider website and system, including describing how the Online Observation Provider’s technology interacts with the Test Taker’s computer hardware;
 - b) the Test Takers’ responsibilities to provide equipment that meets the hardware and software specifications required for the Test Session and internet connectivity at a minimum bandwidth;
 - c) any applicable Artificial Intelligence methods used or Biometric Data gathered during the Online Observation Process;
 - d) instructions for account creation, if required;
 - e) Customer support contact information; and
 - f) Instructions for ending a test and for removing, deactivating or uninstalling any Online Observation technology.
- As an example, hardware and software specifications may include requiring the Test Taker have a computer, camera, microphone, and adequate internet connection.
 - The Online Observation Provider ideally should offer information in multiple locations, such as publishing it on its website and displaying it prior to the start of the Test Session.
 - Where possible, Test Takers should be provided this information prior to the Test Session to allow time for review.

8.5.2 If the Online Observation Provider is a Controller or Co-Controller, communication to the Test Takers shall include, in simple language, the Online Observation Provider's privacy policy.

- The Online Observation Provider's privacy policy should clearly identify the Online Observation Provider's role, instructions for how to contact the Controller(s) of Personal Information, instructions for how to raise questions, issues, or concerns, and how to make requests about Personal Information under applicable privacy laws and regulations.

8.5.3 The Online Observation Provider shall provide the Test Taker with the opportunity to become familiar with the Online Observation process.

- Because Online Observation may be new to some Test Takers, it is helpful to provide opportunities for the Test Taker to become familiar with the process prior to the Test.
- Ideally, the Test Taker should have the ability to review and check the hardware and software requirements prior to registering for the Test or prior to a Test Session. In addition, an online tutorial, instructions, or simulated practice test may be offered to assist the Test Taker in becoming familiar with the Online Observation process.
- Where Test Taker accommodations include use of assistive technology, the Test Taker ideally should be allowed to assess the assistive technology, such as closed captioning or screen reader tools, to ensure it works with the Online Observation system. Note, however, that compatibility with the Online Observation system does not ensure compatibility with the Test driver or Test content.

8.5.4 The Online Observation Provider shall develop, implement, and maintain written policies and procedures to ensure that any individuals interacting with the Online Observation Provider's system or platform are aware when the Online Observation Provider is launching and shutting down the Online Observation system or platform.

- In addition to written notices, the Online Observation Provider may want to develop scripts for Launchers and acknowledgement steps to share with Test Takers when they are logging in, accessing the platform, and launching the Test.

8.6 Administration and Post-Administration Activities

For the administration of the Test Session, either the Online Observation Provider or another entity may provide customer support agents to assist Test Takers or to audit the recorded Test Session after the event. We have addressed both possibilities in this section.

8.6.1 The Online Observation Provider shall ensure processes are in place to promptly notify the Test Sponsor in the event of a significant incident, as defined by the Test Sponsor's incident response plan.

- The Online Observation Provider should seek to assist the Test Sponsor in identifying and defining what is considered a significant incident, and the appropriate responses to take

during the Test Session. A significant incident may include events such as failure of the Online Observation system or a data breach.

- Particularly in the case in which the system is down, the Test Sponsor, Online Observation Provider, and any other vendors involved in the Test Session, should have an agreed upon action plan. This may include proactive outreach to Test Takers and offers to reschedule the Test Session at no additional charge.

8.6.2 Before the start of the Test Session, the Online Observation Provider shall make its Terms of Service publicly available to Test Takers.

- The Online Observation Provider can make these terms available on its primary website, in the form of an End User License Agreement or by incorporating this information into the testing process and having a click-through agreement prior to the Test that a Test Taker must accept before continuing to the Test.

8.6.3 Prior to launching the Test, the Online Observation Provider system shall implement the Test Taker authentication requirements provided by the Test Sponsor.

- At this point in the process, the Online Observation Provider or its technology ideally should notify the Test Taker that Online Observation has started.
- As noted above, the Test Sponsor and Online Observation Provider should agree upon any required authentication methods. The parties should also agree upon the protocols to be followed if a Test Taker cannot be authenticated, as those will vary. Some Test Sponsors may prefer to allow the Online Observation Provider to record the Irregularity but still continue to the Test; others may prefer to not launch the Test and to instruct the Test Taker to reschedule the Test Session.

8.6.4 Prior to the launch of the Test, the Online Observation Provider shall require the Test Taker to ensure any equipment necessary for the Test Session is compatible with the Online Observation Provider's technology and in working order.

- The Online Observation Provider may wish to have an automated system compatibility check that determines whether the Test Taker's bandwidth and other equipment, such as the microphone and camera, are acceptable and working for the Test Session. In addition, the Online Observation Provider may conduct a scan for additional monitors or virtual machines at this time.
- If the Online Observation event requires installation of monitoring or other software on the Test Taker's device, the monitoring software should only be active during the Test Session and should not collect data at other times. The software should be capable of being uninstalled after the Test.
- If the Test Taker's equipment is not compatible with the Online Observation Provider's technology and cannot be addressed through trouble shooting protocols, a customer support agent should be provided a script for informing the Test Taker what to do next. For example, the customer support agent could suggest the Test Taker switch machines or reschedule the Test.

8.6.5 The Online Observation Provider shall provide a capability to interact with the Test Taker in real time during the Test Session.

- An Online Observation Provider may need to interact with a Test Taker during a Test Session for non-technical support reasons. For example, the Online Observation system may take note of insufficient lighting in the Test Taker's environment and message the Test Taker via chat in real time that the environment is noncompliant.

8.6.6 The Online Observation Provider shall provide information to the Test Taker concerning the process for technical or first level support.

- The Online Observation Provider should provide this information on its website and on the Test Taker's screen while the Online Observation Provider software is running. In addition, the entity providing the technical or first level support agents can develop scripts to be used by agents to follow when interacting with the Test Taker. This will enable agents to help address Test Taker issues promptly and consistently.

8.6.7 The Online Observation system shall record the Test Taker's physical and digital testing environment before and during the Test to capture evidence of compliance with Test Sponsor requirements.

- The Online Observation system may identify as an Irregularity any issues and, ideally, identify any noncompliant aspects that need to be addressed for the Test to launch or continue.
- If at any time the physical or digital environments are noncompliant, efforts may be made by the Online Observation Provider to alert or notify the Test Taker of the need to bring the environment back into compliance and, where possible, how to do so. For example, if a Test Taker attempts to "print screen," the online observation system may be configured to prevent this and send a message to the Test Taker that such behavior is noncompliant and prohibited.
- If prior to or during the Test Session it is necessary for the Test Taker to use different equipment, the Online Observation system should conduct an additional equipment check on the new device(s) prior to launching or re-launching the Test Taker's access to the Test.

8.6.8 Once the test is launched, the Online Observation Provider shall use approved technologies to observe the Test Taker and the environment and report on any potential Irregularities.

- The Online Observation Provider should use technology to record evidence of the Test Session and identify any Irregularity in a report to the Test Sponsor. Examples of rules commonly required by a Test Sponsor may include:
 - Test Taker must clear workspace and the surrounding area prior to launch of the Test;
 - Test Taker may not use dual monitors;
 - Test Taker must be connected to a power source;
 - Test Taker may not have access to phones;
 - Test Taker may not wear ear plugs or headphones;
 - Test Taker must be alone in the room;
 - Test Taker is not permitted to talk or read aloud after the Test Session begins;

- Test Taker’s webcam, speakers, and microphone must remain on throughout the Test; and
 - Test Taker must stay in view of the webcam for the duration of the Test.
- The Test Sponsor may request regional differences in instructions to address localization needs.

8.6.9 At the end of the Online Observation session, the Online Observation Provider shall:

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| <ul style="list-style-type: none"> a) Remove or provide instructions to remove any temporary authorized files on the local systems used for the purposes of Online Observation; b) Provide secure and timely reports of Test Session data to the Test Sponsor; c) Make additional information regarding any Irregularity available to a Test Sponsor upon request; and d) Retain Online Observation Test Session data in accordance with Test Sponsor agreements. |
|---|
- The Online Observation system should check that the Test Session has closed for security purposes and, if that has not occurred, report it as an Irregularity. Note, however, that the ability to conduct this check is dependent on the technical integration between the driver provided by the Technology-Based Test Delivery Provider and the Online Observation system and thus may not be available in all instances.
- The system should indicate to the Test Taker that Online Observation has stopped. Ideally, the system should automatically remove any temporary authorized files on the local systems used by the Test Taker during the Test Session.
- The Online Observation Provider should periodically report data to Test Sponsors. Common data provided to Test Sponsors include Tests completed and suspected or confirmed incidents of rule violations.
- The Online Observation Provider should periodically conduct reviews of incidents to determine whether other activities can be taken to mitigate against future incidents.

C. Requirements and Responsibilities for Proctors, Auditors, and Launchers

9 Requirements and Responsibilities for Launchers

Launchers may be supplied by the Online Observation Provider or by other entities, such as the Test Sponsor or another third-party provider. This section is directed specifically to the requirements of Launchers, regardless of who is supplying the Launcher.

9.1 Launchers shall be qualified and trained to perform their roles.

- The entity providing the Launchers should follow hiring best practices when selecting Launchers including consideration of appropriate background checks.
- The entity providing the Launchers is responsible for ensuring the Launchers are qualified and trained to perform their role. This includes comprehensive onboarding and regular training to ensure competency.
- Launcher training should include training on effectively authenticating an individual and on Processing and protecting Test Taker Personal Information. The entity providing the Launchers may wish to implement a Launcher assessment to ensure the Launchers understand the training provided and their roles and responsibilities.
- If processes are not adhered to by the Launchers, the entity providing the Launchers should have a policy for providing remediation training and verification of competencies or event termination if the level of malfeasance warrants. The entity providing the Launcher should gather information to demonstrate adherence to its training and remediation policies.

9.2 The entity providing Launchers shall enter into written agreements with individual Launchers that require disclosure of conflicts of interest as well as the protection of Test Taker Personal Information.

- Because Launchers may become privy to confidential information, including Test Taker Personal Information, Launchers are required to agree to keep such information secure and confidential. It is best practice to train Launchers on these obligations so they are aware of the scope of their responsibility and potential consequences should they breach their agreement.
- Launchers should be objective in authenticating Test Takers and reviewing the digital and physical environments prior to launching the Test. Launchers should be required to disclose any real or potential conflicts of interest prior to launching a Test Session. For example, certain relationships, such as familial or employer relationships, can create a real or perceived conflict of interest. The Test Sponsor should make clear what it considers to constitute a conflict of interest and provide a clear communication path for when conflict of interest incidents arise. For example, certain relationships, such as familial or employer relationships, can create a real or perceived conflict of interest. Launchers should have a clear communication path for reporting a real or potential conflict. In addition to disclosure, Launchers should receive periodic training and reminders regarding what constitutes a conflict of interest and to whom a real or potential conflict should be reported.

9.3 Where situations arise that pose or appear to pose a conflict of interest, security, or safety concern, the entity providing the Launchers shall take corrective actions to ensure they are mitigated.

- Steps taken to address conflicts of interest, and any corrective actions implemented should be documented to provide consistency and demonstrate adherence to policy.

9.4 The entity providing the Launchers shall develop, implement, and maintain documented policies and procedures that describe the roles, responsibilities, technology, and data privacy and protection, and security requirements for Launchers.

- Launcher policies and procedures should be reviewed regularly to incorporate updates and new compliance requirements.

9.5 Launchers shall have adequate internet bandwidth and other tools that meet the technical requirements set by the Online Observation Provider to check-in Test Takers without interruption.

- Launchers should receive written information from the entity supplying the Launchers setting forth what constitutes an adequate internet connection to effectively use the Online Observation Provider's system.
- The locations at which Launchers may check-in Test Takers may vary. For example, some Online Observation Providers allow Launchers to work from home, while others require Launchers to perform their duties in a centralized office space; some allow for a mix of at home and centralized office activities. Wherever Launchers are allowed to perform their work, Launchers should be required to demonstrate they have access to sufficient bandwidth to allow for a seamless connection experience.
- Similarly, the entity providing the Launchers should work with the Online Observation Provider to provide written hardware and software specifications to ensure adequate performance within the Online Observation Provider's system.
- Launchers shall have all software and hardware necessary to perform their role. Typically, the entity supplying the Launchers will provide the software and hardware needed by the Launchers. By providing these tools, the entity supplying the Launchers can leverage security features such as multi-factor authentication, undertake periodic compliance reviews, and more easily perform trouble shooting should issues arise. In addition, the hardware and software design should incorporate accessibility standards, such as avoiding use of color alone to indicate an issue, as a colorblind individual will not be able to tell the difference between indicators.
- Any device used by the Launcher to perform online observation shall meet the Online Observation Provider's security specifications. These may include the ability to perform multi-factor authentication, antivirus protections, malware protection, installation of security patches, firewall protection, authentication, password complexity, encryption, and device lock or log out. During the Online Observation Process, the Launcher's device may be prevented from taking screenshots and from downloading or storing Test Taker recordings. It is considered best practice to periodically confirm compliance with these specifications.

9.6 There shall be no Test Taker data or Personal Information stored on the Launcher's device used for checking in the Test Taker after the Test is launched.

9.7 The Launcher's work environment shall be suitable for performing focused work and free of any individuals who are not subject to a confidentiality agreement.

- Launchers should focus their full attention on authenticating the Test Taker and confirming the digital and physical environment meets Test Sponsor requirements. To that end, it is helpful if the Launcher's work environment is quiet and should be free of distractions.

9.8 The entity supplying the Launchers shall develop, implement, and maintain a process to monitor and audit Launchers for quality assurance and training purposes.

- Establishing a uniform process promotes consistency, and auditing those processes helps to confirm compliance. Audits can be conducted either online or in person and should be undertaken on a periodic basis. Results may be, but are not required to be, provided to Test Sponsors. Test Sponsors may also desire to perform their own audits of Launchers.

9.9 Launchers shall be trained to use the Online Observation Provider's technology, recognize and record Irregularities, understand specific data privacy and protection and security requirements of the Online Observation Provider and Test Sponsor, and appropriately handle and protect Test Taker Personal Information.

- Training should be provided on a regular basis to help promote consistent and high-quality performance by the Launcher. Training should include the importance of, and protocols for, protecting Test Taker Personal Information. Training on the security of Test Taker Personal Information should occur on an annual basis. The entity providing the Launchers should keep a record of the training dates and a copy of the training materials.

9.10 Launchers shall be provided with clear instructions concerning how to resolve environmental factors that could impact the security of the Test.

- Some environmental factors may negatively impact test integrity and score validity, such as poor lighting that makes it difficult to clearly view the Test Taker or unauthorized electronic devices visible in the testing space. Clear instructions should be provided to the Launchers to correct concerning environmental issues during check-in, as well as what to do if these issues cannot be corrected. To provide consistent treatment of Test Takers, it is best practice to give Launchers standardized scripts and protocols for addressing common issues.

9.11 The Launchers shall follow Test Sponsor instructions for Test Taker accommodations when administering a Test.

- Launchers should receive training regarding accommodations and receive clear instructions concerning specific Test Taker accommodations prior to launching a Test.

9.12 Launchers shall follow Test Sponsor requirements to authenticate the individual presenting to test.

- Test Sponsors may require the Launcher to verify that the individual appearing for a Test Session matches the information presented on an appropriate identification card. The Launcher should confirm if the name on the card matches the name of the individual presenting to test. If the card includes a photo, the Launcher should determine whether the photo matches the individual presenting to test. If the Launcher is unable to authenticate the individual, the Launcher should follow the requirements set forth by the Test Sponsor regarding whether to complete check-in and how to document the Irregularity.

9.13 The Launcher shall confirm the physical and digital testing environments are compatible with the Test Sponsor and Online Observation Provider specifications prior to completing check-in.

- The Launcher should have the ability to evaluate the physical testing environment by both sight and sound. Should the testing environment be noncompliant with the Test Sponsor or Online Observation Provider requirements at any time before check-in is complete, the Launcher should follow the protocols established by the Test Sponsor.

9.14 The Launchers shall report any Irregularities noted during check-in of the Test Taker based upon the Online Observation Provider and Test Sponsor specifications.

10 Requirements and Responsibilities for Proctors

Proctors may be supplied by the Online Observation Provider or by other entities, such as the Test Sponsor or another third-party provider. This section is directed specifically to the requirements of Proctors, regardless of who is supplying those individuals.

10.1 Proctors shall be qualified and trained to perform their roles.

- The entity providing Proctors should follow hiring best practices when selecting Proctors, including consideration of appropriate background checks.
- The entity providing the Proctors is responsible for ensuring the Proctors are qualified and trained to perform their role. This includes comprehensive onboarding and regular training to ensure competency.
- Proctor training should include training on the protection of Test content, other intellectual property, and on Processing and protecting Test Taker Personal Information. Proctor assessments may be used to ensure the Proctors understand the training provided and their roles and responsibilities.
- If processes are not adhered to by the Proctor, the entity providing the Proctor should have a policy for providing remediation training and verification of competencies or even termination if the level of malfeasance warrants. The entity providing the Proctors should gather information to demonstrate adherence to its training and remediation policies.

10.2 The entity providing Proctoring services shall enter into written agreements with individual Proctors that require disclosure of conflicts of interest as well as a commitment to the protection of Test content, other intellectual property, and Test Taker Personal Information.

- Because Proctors may become privy to confidential information, including Test Sponsor intellectual property and Test Taker Personal Information, Proctors are required to agree to keep such information secure and confidential. It is best practice to train Proctors on these obligations so they are aware of the scope of their responsibility and potential consequences should they breach their agreement.
- Proctors should be objective in the delivery and observation of the Test Session. Proctors should be required to disclose any real or potential conflicts of interest prior to proctoring a Test Session. For example, certain relationships, such as familial or employer relationships, can create a real or perceived conflict of interest. Proctors should have a clear communication path for reporting a real or potential conflict. In addition to disclosure, Proctors should receive periodic training and reminders regarding what constitutes a conflict of interest and to whom a real or potential conflict should be reported.

10.3 Where situations arise that pose or appear to pose a safety, conflict of interest, or security concern, the entity providing the Proctors shall take corrective actions to ensure they are mitigated.

- Steps taken to address conflicts of interest, and any corrective actions implemented should be documented to provide consistency and demonstrate adherence to policy.

10.4 The entity providing the Proctors shall develop, implement, and maintain documented policies and procedures that describe the roles, responsibilities, technology, and data privacy and protection, and security requirements for Online Proctors.

- Proctor policies and procedures should be reviewed regularly to incorporate updates and new compliance requirements.

10.5 Proctors shall have adequate internet bandwidth and other tools that meet the technical requirements set by the Online Observation Provider to observe Test Takers without interruption.

- The Proctors should receive written information from the entity supplying the Proctors setting forth what constitutes an adequate internet connection to effectively use the Online Observation Provider's system.
- The locations at which Proctors may perform Online Observation may vary. For example, some Online Observation Providers allow Proctors to work from home, while others require Proctors to perform their duties in a centralized office space; some allow for a mix of at home and centralized office activities. Wherever Proctors are allowed to perform their work, Proctors should be required to demonstrate they have access to sufficient bandwidth to allow for a seamless connection experience.

- Similarly, the entity providing the Proctors should work with the Online Observation Provider to provide written hardware and software specifications to ensure adequate performance within the Online Observation Provider's system.
- Proctors shall have all the software and hardware necessary to perform their role. Typically, the entity supplying the Proctors will provide the software and hardware needed by the Proctors. By providing these tools, the entity supplying the Proctors can leverage multi-factor authentication, undertake periodic compliance reviews, and more easily perform trouble shooting should issues arise. In addition, the hardware and software design should incorporate accessibility standards, such as avoiding use of color alone to indicate an issue, as a colorblind individual will not be able to tell the difference between indicators.
- Any device used by the Proctor to perform online observation shall meet the Online Observation Provider's security specifications. These may include the ability to perform multi-factor authentication, antivirus protections, malware protection, installation of security patches, firewall protection, authentication, password complexity, encryption, and device lock or log out. During the Online Observation Process, the Proctor's device may be prevented from taking screenshots and from downloading or storing Test Taker recordings. It is considered best practice to periodically confirm compliance with these specifications.

10.6 There shall be no Test Taker data or Personal Information stored on the Proctor's device used for observing the Test after the Test Session is completed.

10.7 The Proctor's work environment shall be suitable for performing focused work and free of any individuals who are not subject to a confidentiality agreement.

- Proctors should focus their full attention on the Tests being observed. To that end, it is helpful if the Proctor's work environment is quiet and free of distractions. The entity supplying the Proctors should have back-up available to observe the Test in the event the Online Proctor needs a break.

10.8 The entity supplying the Proctors shall develop, implement, and maintain a process to monitor and audit Proctors for quality assurance and training purposes.

- Establishing a uniform process promotes consistency and auditing those processes helps to confirm compliance. Audits can be conducted either online or in person and should be undertaken on a periodic basis. Results may be, but are not required to be, provided to Test Sponsors. Test Sponsors may also desire to perform their own audits of Proctors.

10.9 Proctors shall be trained and required to use the Online Observation Provider's technology, recognize and record Irregularities, understand specific data privacy and protection and security requirements of the Online Observation Provider and Test Sponsor, and appropriately handle and protect Test Taker Personal Information.

- Training should be provided on a regular basis to help promote consistent and high-quality performance by the Proctor. Training should include the importance of, and protocols for, protecting Test content and other intellectual property as well as Test Taker Personal Information. Training on the security of Test Taker Personal Information should occur on an

annual basis. The entity providing the Proctors should keep a record of the training dates and a copy of the training materials.

10.10 The Proctor shall be provided with clear instructions concerning how to resolve environmental factors that could impact the security of the Test.

- Some environmental factors may negatively impact test integrity and score validity, such as poor lighting that makes it difficult to clearly view the Test Taker or unauthorized electronic devices visible in the testing space. Clear instructions should be provided to the Proctor to correct concerning environmental issues as well as what to do if these issues cannot be corrected. To provide consistent treatment of Test Takers, it is best practice to give Proctors standardized scripts and protocols for addressing common issues.

10.11 The Proctor shall follow Test Sponsor instructions for Test Taker accommodations when administering a Test.

- Proctors should receive training regarding accommodations and receive clear instructions concerning specific Test Taker accommodations prior to launching a Test.

10.12 Proctors shall correctly enforce differing Test Sponsor requirements during concurrent Online Observation sessions.

- Proctors are responsible for following clearly outlined Test Sponsor requirements for introduction, launch, and observation during the test and intervention, if required.
- Because some Test Sponsor requirements differ, providing scripts and protocols to Proctors is best practice in helping Proctors act in accordance with Test Sponsor expectations.

10.13 If no Launcher is provided, then prior to launching a Test, the Proctor shall follow Test Sponsor requirements to authenticate the individual presenting to test.

- Test Sponsors may require the Proctor to verify that the individual appearing for a Test Session matches the information presented on an appropriate identification card. The Proctor should confirm if the name on the card matches the name of the individual presenting to test. If the card includes a photo, the Proctor should determine whether the photo matches the individual presenting to test. If the Proctor is unable to authenticate the individual, the Proctor should follow the requirements set forth by the Test Sponsor regarding whether to launch the Test and how to document the Irregularity.

10.14 If no Launcher is provided, then prior to launching the Test, the Proctor shall confirm the physical and digital testing environments are compatible with the Test Sponsor and Online Observation Provider specifications, and the Proctor shall monitor the physical and digital testing environments throughout the Test Session for continued compliance.

- The Proctor should have the ability to monitor the physical testing environment by both sight and sound. Should the testing environment be noncompliant with the Test Sponsor or Online Observation Provider requirements at any time before (if they launch the Test) or during the Test, the Proctor should follow the protocols established by the Test Sponsor.

10.15 The Proctor shall not provide Test Takers with assistance on or answers to Test questions.

- Under no circumstances should a Proctor provide Test Takers with assistance with the Test or answers to Test questions. A Proctor who is found to have engaged in this type of conduct should immediately be removed from observing that Test. The entity providing the Proctor should engage in appropriate remediation, up to and including termination of the Proctor.

10.16 The Proctor shall protect Test content and other intellectual property of the Test Sponsor during the Test Session.

- It is critical that the Proctor understands the importance of protecting Test content and the steps to be taken if content is at risk because of actions by a Test Taker. Test content is costly to produce, and the confidentiality of the content is an important factor in the Test Sponsor's ability to deliver valid scores. The Proctor should follow the protocols provided by the Test Sponsor concerning the protection of Test content, which may include intervening in the Test Session to provide the Test Taker a warning or immediately ending a Test Session if Test Taker behavior puts the Test content at risk.

10.17 The Proctor shall control the Test Session and intervene in accordance with the Test Sponsor's written instructions.

- The Proctor should receive clear instructions from the Test Sponsor and the entity providing the Proctors concerning when intervention is appropriate and how to properly intervene.
- The Proctor should understand the criteria for intervention and how to effectively intervene if the Test Taker's behavior is violating the Test Sponsor's rules or harm to the Test Sponsor's intellectual property or Test Taker is imminent. For example, there may be instances where intervention and refusal to start the Test is appropriate because the Test Taker failed to wear clothing to the Test Session. As another example, intervention may also be appropriate if the Test Taker is threatening self-harm. Additional examples include instances where a Test Taker's environment becomes noncompliant, such as when another individual enters the room, or the Test Taker's behavior violates the rules of the Test, such as using a book when that is not allowed.

10.18 Provided there has not been an Irregularity that requires early termination of a Test Session, the Proctor shall not end the Online Observation activities before the Test Taker ends the Test or exits the session.

- A Proctor should not end an Online Observation prematurely in the absence of an Irregularity that warrants it.
- If the Proctor cannot see the Test questions, the Technology Based Testing vendor should clearly indicate when the Test Session has been successfully ended.

10.19 The Proctor shall report any Irregularities based upon Test Sponsor and Online Observation Provider specifications.

- The Proctor should follow any templated format for reporting Irregularities that arise during the Testing Session.

11 Requirements and Responsibilities for Auditors

Auditors may be supplied by the Online Observation Provider or by other entities, such as the Test Sponsor or another third-party provider. This section is directed specifically to the requirements of Auditors, regardless of who is supplying the Auditor.

11.1 Auditors shall be qualified and trained to perform their roles.

- The entity providing the Auditors should follow hiring best practices when selecting Auditors including consideration of appropriate background checks.
- The entity providing the Auditors is responsible for ensuring the Auditors are qualified and trained to perform their role. This includes onboarding and regular training to ensure competency.
- Auditor training should include training on the protection of Test content, other intellectual property, and on Processing and Protecting Test Taker Personal Information. The entity providing Auditors may wish to implement Auditor assessments to ensure the Auditors understand the training provided and their roles and responsibilities.
- If processes are not adhered to by an Auditor, the entity providing the Auditors should have a policy for providing remediation training and verification of competencies or even termination if the level of malfeasance warrants. The entity providing the Auditors should gather information to demonstrate adherence to its training and remediation policies.

11.2 The entity providing test session auditing services shall enter into written agreements with individual Auditors that require disclosure of conflicts of interest as well as the protection of Test content, other intellectual property, and Test Taker Personal Information.

- Because Auditors may become privy to confidential information, including Test Sponsor intellectual property and Test Taker Personal Information, Auditors are required to agree to keep such information secure and confidential. It is best practice to train Auditors on these obligations so they are aware of the scope of their responsibility and potential consequences should they breach their agreement.
- Auditors should also be objective in the review of a Test Session. Auditors should be required to disclose any real or potential conflicts of interest prior to reviewing a Test Session. For example, certain relationships, such as familial or employer relationships, can create a real or perceived conflict of interest. Auditors should have a clear communication path for reporting a real or potential conflict. In addition to disclosure, Auditors should receive periodic training and reminders regarding what constitutes a conflict of interest and to whom a real or potential conflict should be reported.

11.3 Where situations arise that pose or appear to pose a conflict of interest, security, or safety concern, the entity providing the Auditors shall take corrective actions to ensure they are mitigated.

- Steps taken to address conflicts of interest, and any corrective actions implemented should be documented to provide consistency and demonstrate adherence to policy.

11.4 The entity providing the Auditors shall develop, implement, and maintain documented policies and procedures that describe the roles, responsibilities, technology, and data privacy and protection and security requirements for Auditors.

- Auditor policies and procedures should be reviewed regularly to incorporate updates and new compliance requirements.

11.5 Auditors shall have adequate internet bandwidth and other tools required to meet the technical requirements set by the Online Observation Provider to audit Test Sessions.

- The entity providing the Auditors should work with the Online Observation Provider to provide written internet, hardware, and software specifications necessary to ensure adequate performance within the Online Observation Provider's system.
- Auditors shall have all the software and hardware necessary to perform their role. Typically, the entity supplying the Auditors will provide the software and hardware needed by the Auditors. By providing these tools, the entity supplying the Auditors can leverage multi-factor authentication, undertake periodic compliance reviews, and more easily perform troubleshooting should issues arise. In addition, the hardware and software design should incorporate accessibility standards, such as avoiding use of color alone to indicate an issue, as a colorblind individual will not be able to tell the difference between indicators.
- Any device used by the Auditors to perform online observation shall meet the Online Observation Provider's security specifications. These may include the ability to perform multi-factor authentication, antivirus protections, malware protection, installation of security patches, firewall protection, authentication, password complexity, encryption, and device lock or log out. During the audit, the Auditor's device may be prevented from taking screenshots and from downloading or storing Test Taker recordings. It is considered best practice to periodically confirm compliance with these specifications.

11.6 There shall be no Test Taker data or Personal Information stored on the Auditor's device after the Auditor review is completed.

11.7 The Auditor's work environment shall be suitable for performing focused work and free of any individuals who are not subject to a confidentiality agreement.

- An auditor's work environment should be quiet and free of other individuals and distractions.

11.8 The entity supplying the Auditors shall establish, implement, and maintain a process to monitor and audit Auditors for quality assurance and training purposes.

- Establishing a uniform process promotes consistency, and auditing those processes helps to confirm compliance. Auditing the work of Auditors can be undertaken on a periodic basis to help improve Auditor performance. Results may be, but are not required to be, provided to Test Sponsors.

11.9 Auditors shall be trained and required to use the Online Observation Provider's technology required for Test Session review, recognize and record Irregularities, understand

specific data privacy and protection and security requirements of the Online Observation Provider and Test Sponsor, and appropriately handle and protect Test Taker Personal Information.

- Training should be provided on a regular basis to help promote consistent and high-quality performance by the Auditor. Training should include the importance of, and protocols for, protecting Test content and other intellectual property as well as Test Taker Personal Information. Training on the security of Test Taker Personal Information should occur on an annual basis. The entity providing the Auditors should keep a record of the training dates and a copy of the training.

11.10 The Auditor shall report any Irregularities based upon Test Sponsor and Online Observation Provider specifications.

- The process for recording and reporting irregularities should be documented. Auditors may be asked to review and record Irregularities related to Test Taker authentication as well as Test Taker environments and behavior during the Test Session.
- In addition to providing human review of the recorded Test Session for purposes of reporting Irregularities, Auditors may also provide continuous learning feedback for Proctors to enable improvement of Proctoring services.

Looking Ahead

Change will remain constant

Academic research is beginning to be published concerning learnings from the COVID-19 pandemic and how it affected the adoption, behavior, and outcomes of programs that shifted to blended formats or offered fully online delivery for the first time. This new information will continue to emerge. As a community that embraces learning, the assessment industry will continue to adjust and adapt.

Device and Mobile Interaction

It is common for the average person to have multiple Wi-Fi capable devices in their possession, with smart phones being most predominant. Supporting the multitude of device types and operating systems at scale will continue to be a challenge for those on the delivery side. Consideration of how, when, and why a Test Taker's mobile phone is involved in assessment will remain an ongoing discussion for the industry as technology continues to evolve.

User and Consumer Expectations around Convenience, Accessibility, and Accommodations

Younger generations are fully digital natives and have increasing expectations around the user experience and convenience related to learning and assessment. These expectations will impact Test design, presentation, workflow, and customer support and should guide further

technological development. This will enable the education and assessment communities to create meaningful and lasting value for Test Takers over the coming years. In addition, the education and assessment communities must continue to give attention to accessibility and accommodations to better serve the varied needs of Test Takers. These are critical to ensuring that all individuals have access to the benefits available through testing.

Humans vs. Machines

As organizations seek efficiency, often that may involve the use of advanced computing and Processing of data by cloud service providers. The debate and investigation of when a machine is involved in Processing information, making determinations, or supporting decision making is likely to remain a topic of interest. Throughout this document, the concept of human intervention has been highlighted to emphasize the need for decisions affecting individuals not to be made solely by automated decision-making tools or AI.

Verification Advances

There may be other widely accepted ways to verify and grant access to learning content or assessments in the future. While these Standards are comprehensive, the Co-Sponsors encourage the users of these Standards to consider that other secure and efficient ways to grant access and validate candidates may become more prevalent in the future.

How do we do this next time, and faster?

A significant effort was made in creating these Standards. It has been contributed to and reviewed by a global audience of experts over more than five years, and while it may be timeless in some sections, other sections will surely be outpaced by continued change. With that in mind, the NCTA and the ATP are looking ahead and expect to provide ways to make these Standards easier to update periodically. For example, these Standards will be available online first with print distribution following in hopes it can reach the widest audience possible without leaving out consumers that prefer to obtain a print copy. Placing it online will allow us to update and iterate faster in the future. After all, a significant reason this work is occurring is because of the rapid rate at which the consumption of education and measurement of knowledge is taking place virtually.

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