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Caveon Webinar Series:

Online proctoring: Transitioning from Best Practices to Standards

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A Note on Terminology


- Remote proctoring has been around for several decades. That's not what we need today.
- We need Online Proctoring, proctoring that operates using a continuous online connection.



What's the Big Deal?

...about security for online tests?

- More and more important tests are being delivered online.
- Testing locations will be increasingly non-traditional.
- Important decisions are being made based on the test score.
- Convenience and lower cost of online test administration are overwhelmingly attractive.
- Lack of infrastructure for computerized testing in schools will move the focus of the educational community to a distributed online testing model with online proctoring.
- Online proctored testing is the future.



It's not just a big deal...

- ...Security is the only deal!
 - Security is the #1 and only important issue for administering important online tests.
 - Don't create more security risks with poor online proctoring.
 - Half-way security is worse than no security at all!



Before we get carried away...

- Online proctoring does not solve all security problems.
- Online proctoring needs other security support. Here are a few examples:
 - Test taker agreements
 - Data forensics
 - Web patrol
 - Program Security Plans/Handbook



Nine Caveon Standards for Online Proctoring

1. The online proctor must be able to see the workstation, head, torso, arms and hands of the examinee.
2. The test taker, during the exam, must have no ability to use the testing computer to access other resources (e.g., Internet and drive) or to use non-test taking functions of the operating system or browser.
3. The online proctor must not be able to view test content.
4. The online proctor must have the ability to communicate with test taker (e.g., email, instant messaging, phone).
5. The online proctor must have the ability to control the test session (e.g., pause, un-pause, suspend, cancel).
6. Examinee must be properly authenticated as the person who should be taking the exam.
7. The test session must be video recorded and stored, particularly the security incidents. The recording must include any information relevant to the security of the test, e.g., proctor logs, incident time stamps, conversations, etc.
8. Online proctoring models must conduct and publish research on effectiveness.
9. Security of online proctoring must be supported by other security practices, such as secure item and test design, test taker NDAs, data forensics, periodic audits, web monitoring, and others.

Converted from 7 Best Practices to 9 Standards



Caveon Standard #1

The online proctor must be able to see the workstation, head, torso, arms and hands of the examinee.



Caveon Standard #2

The test taker, during the exam, must have no ability to use the testing computer to access other resources (e.g., Internet, hard drive) nor to use non-test taking functions of the operating system or browser.

**STRONG
LOCKDOWN**



Caveon Standard #3

The online proctor must not be able to view test content.



Yes...It's a Higher Standard!



Caveon Standard #4

The online proctor must have the ability to communicate with test taker (e.g., email, instant messaging, phone call).



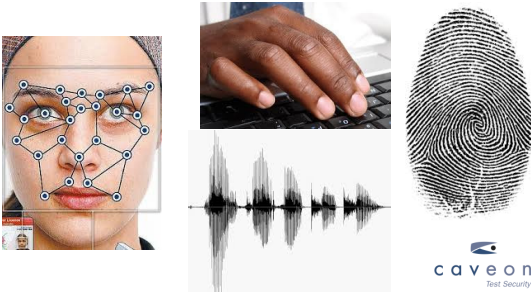
Caveon Standard #5

The online proctor must have the ability to control the test session (e.g., pause, un-pause, suspend, cancel).



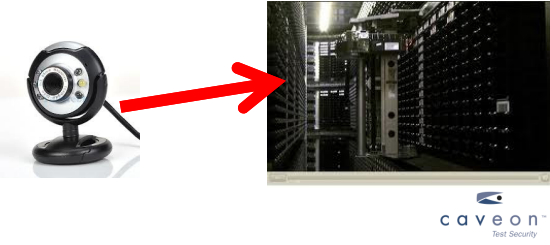
Caveon Standard #6

Examinee must be clearly authenticated as the person who should be taking the exam at exam launch and during the exam.



Caveon Standard #7

The test session must be video recorded and stored, particularly the security incidents. Stored records need to include any information relevant to the security of the test session (proctor logs, incident time stamps, conversations, etc.).



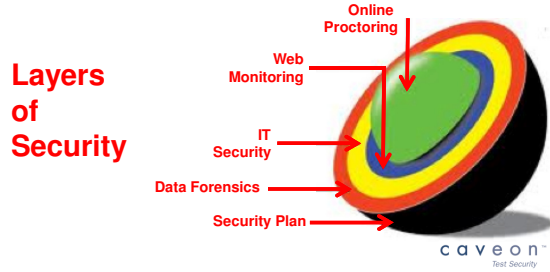
Caveon Standard #8

Organizations with online proctoring models must conduct and publish research on effectiveness.



Caveon Standard #9

Security provided by online proctoring must be supported by other security procedures, such as secure item and test design, test taker NDAs, data forensics, periodic audits, web monitoring, and others.



Organizations Looking to Create Standards or Guidelines for Online Proctoring

- Accrediting Organizations and Testing Associations
 - National Commission for Certifying Agencies (NCCA)
 - American National Standards Institute (ANSI)
 - Association of Test Publishers (ATP)
 - National Council of Measurement in Education (NCME)
 - International Test Commission (ITC)



Consequences of Non-Adherence to Standards

- There will be security holes that can and will be exploited
 - Rampant cheating
 - Effective theft of test content
- The solution will be worse than traditional proctoring, already a fairly low standard
- It will lead to lack of test validity
- It will lead to loss of program credibility



When it comes to test security...

- ...good security is the only option!
 - More threats anticipated and watched
 - Professional and unbiased decisions by proctors
 - Fewer actual incidents
 - Drastically lowered risk
 - Strong evidence to support actions



Trends and Possibilities in Online Proctoring

- Improved tools:
 - Better cameras (higher resolution; greater field of view, less expensive)
 - Automated support
 - Improved biometric authentication, such as facial and voice recognition, keystroke analytics
- More high-quality online proctoring providers
- Possible additional uses
 - Monitor traditional proctors



Evaluating the many services is easy...

- ...compare with the Caveon standards
- ...ask for the effectiveness research



Concluding Remarks

- Exciting technologies, exciting times
- Traditional proctoring is weak and needs to be replaced or supplemented
- Replacing it with an online proctoring model that is just as weak is not the solution
- Those of you with testing programs have the power to insist on models that follow the standards



The Paper...

Online Proctoring Systems Compared

David Foster, Caveon Test Security

Harry Layman, The College Board

March 13, 2013

Online Proctoring Systems Compared paper can be found at <http://bit.ly/proctoring>



HANDBOOK OF TEST SECURITY

- Editors - James Wollack & John Fremer
- Published March 2013
- Preventing, Detecting, and Investigating Cheating
- Testing in Many Domains
 - Certification/Licensure
 - Clinical
 - Educational
 - Industrial/Organizational
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 - We now post a "Security Tip of the Day" every Tuesday and Thursday and our "Caveon Security Minute" video every Wednesday.
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www.caveon.com



THANK YOU!

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