



### Upcoming Caveon Events

**The Conference on Test Security, October 1-2**  
Iowa City, ACT Headquarters  
We'll be there!



**Caveon Webinar Series: Next session, October 15**  
*Lessons Learned at E-ATP and the Conference on Test Security*  
Presented by Steve Addicott, John Fremer and Dave Foster

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### Housekeeping

- This session will be recorded.
- Links to the slides and recording will be sent to you within 48 hours of the session.
- Everyone is muted. To ask questions, please enter them in the question box.



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**Caveon Webinar Series**

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**Security Challenges in Developing New Testing Programs**

Coffee and conversation...



Josephine Elizaga  
Genesys

Jamie Mulkey  
Caveon, LLC

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**Today's format: Coffee & Conversation**



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**About our speakers...**

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**Josephine Elizaga**



- 20 years experience in Information Technology – Software Training industry
- 15 years with Hewlett Packard Software Education
- Experience gained from HP ExpertONE program
- Sr. Manager for Certification, [Genesys](#)

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### About our speakers...



**Jamie Mulkey**

- 7 ½ years Caveon
- 20 years managing, consulting with certification programs
- CESP Certification Program Executive Director

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### Poll Question:

- Are you in the process of developing a new certification program?
  - Yes, I'm starting a brand new program
  - Yes, I'm adding a certification program to an existing portfolio
  - No, I'm just looking for some test security ideas I can add to my program

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### Agenda

- When's the time to consider test security?
- What are some resources I can use?
- How do I talk with my management about test security?

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## Exam Development Cycle

Planning and Analysis	Design	Development (and Review)	Implement	Evaluate
<ul style="list-style-type: none"> <li>- Business plan</li> <li>- Components in place:               <ul style="list-style-type: none"> <li>- Resources</li> <li>- Guidelines</li> <li>- Policies</li> <li>- Infrastructure (technology and organizational)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- Item design and dev workshop</li> <li>- Competency blueprint</li> <li>- Exam outline draft document</li> </ul>	<ul style="list-style-type: none"> <li>- Exam bank</li> <li>- Technical review</li> <li>- Psychometric review</li> <li>- Angoff review</li> </ul>	<ul style="list-style-type: none"> <li>- Beta test phase</li> <li>- Feedback</li> </ul>	<ul style="list-style-type: none"> <li>- Feedback</li> <li>- Score adjustment</li> </ul>

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## When Do I Start Thinking about Exam Security?

In every single phase of the cycle

Planning and Analysis	Design	Development (and Review)	Implement	Evaluate
<ul style="list-style-type: none"> <li>- Business plan</li> <li>- Components in place:               <ul style="list-style-type: none"> <li>- Resources</li> <li>- Guidelines</li> <li>- Policies</li> <li>- Infrastructure (technology and organizational)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>- NDA for exam reviewers</li> <li>- System to gather and distribute input from exam designers</li> <li>- System to gather input from exam reviewers</li> </ul>	<ul style="list-style-type: none"> <li>- NDA for exam writers</li> <li>- Infrastructure to house the exam bank</li> <li>- System or process to review the exam bank without distributing documents</li> <li>- Ability to create multiple forms</li> </ul>	<ul style="list-style-type: none"> <li>- Candidate agreement for test takers</li> </ul>	<ul style="list-style-type: none"> <li>- Monitor exam activity, community channels</li> </ul>

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## What Do I Have Set Up?

- Policies
  - NDA
  - Candidate Agreement
  - Cheating policy
- Guidelines
  - Item writing guidelines
  - File-naming guidelines
  - File distribution guidelines
- Infrastructure (technology and organizational)
  - Exam development and delivery system
  - Exam review applications and system (Angoff forms, psychometric review, form build)
  - Relationships with legal, marketing, customer support and web organizations

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**Why is a well-crafted candidate agreement important?**

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Importance of a **well-crafted Candidate Agreement**

- Binding contract
- Defines relationship
- Memorializes rights/obligations
- Makes expectations and remedies clear (if done properly)



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**Poll Question:**

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- Which of the following do you have in place for your testing program? (choose all that apply)

- Candidate policies and agreements
- Guidelines for item development and distribution
- Secure exam development and delivery Infrastructure
- Web monitoring for possible exam exposure
- Relationships with legal, marketing, customer support



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**How Do You Talk with Management about Test Security?**

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- Education management
  - Exam validity and valid test results
- Other organizations like marketing and legal
  - IP theft and monitoring
- Executive management
  - How certification can help the business and what resources are needed to make it happen



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### How do you monitor the web when one person is responsible for a program?

- I seek the help of Marketing, Customer Support and Web Administrators who are in charge of the organization's forums.



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### What Mechanisms Will You Use to Detect Cheating?

- Web monitoring
  - Checking chat rooms, brain dump sites, forums for chatter
- Statistical analysis
  - Making sure thresholds are in place to make policy decisions about invalidating test scores



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### Poll question

- What are some issues you've seen when starting a new testing program?
- No budget for test security prevention
- Lack of buy in from management about test security dangers
- Lack of people resources to help manage test security issues



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**What test security advice do you have for a new testing program manager?**

- Don't wait until you have the first instance of cheating before you start thinking of protecting your IP.
- Establish relationships with the legal, marketing and customer support organizations in your company.
  - We may be a one-person program but we can utilize the expertise of many others in the company.



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**If you have budget for one test security feature, what would it be?**

- A good exam delivery vendor
- A good cheating policy (Legal?)
- A third-party web monitoring service
- More items!



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**What is the new CESP program doing to integrate security upfront?**

- Designed with security in mind
- Item Type – Discrete Option Multiple Choice (DOMC) [www.trydomc.com](http://www.trydomc.com)
- Resource usage considerations
- Registration
- Test administration



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### DOMC example

**Mule Deer Facts**

Item 1 of 8

How long does it take for the spots on a newborn mule deer to disappear?

about 6 months

**Yes** **No**

**Hide Inner Workings**

**Option Pool**  
1 correct and 4 incorrect

**Presentation Set**  
1 correct and 4 incorrect

**To Get Item Right**  
Answer YES to 1 correct option OR  
Answer NO to 3 incorrect options

**To Get Item Wrong**  
Answer NO to 1 correct option OR  
Answer YES to 1 incorrect option

**Extra Option Probability**  
0.5

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### Test Security Incident Response Plan

An incident happens...

- What will you do?
- Who will you contact?
- What are the sanctions?
- How do you respond?
- How do you communicate with stakeholders?



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### We're out of coffee...

- Integrating test security into the exam development life cycle
- Putting processes, policies, & procedures in place
- Talking with management about the importance of test security
- Maximizing your security dollars as new program



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## Questions?

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## THANK YOU!

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