



Video-Annotation with Expert Model Feedback (V-A/EMF)

Computer-based training of Intuitive Expertise

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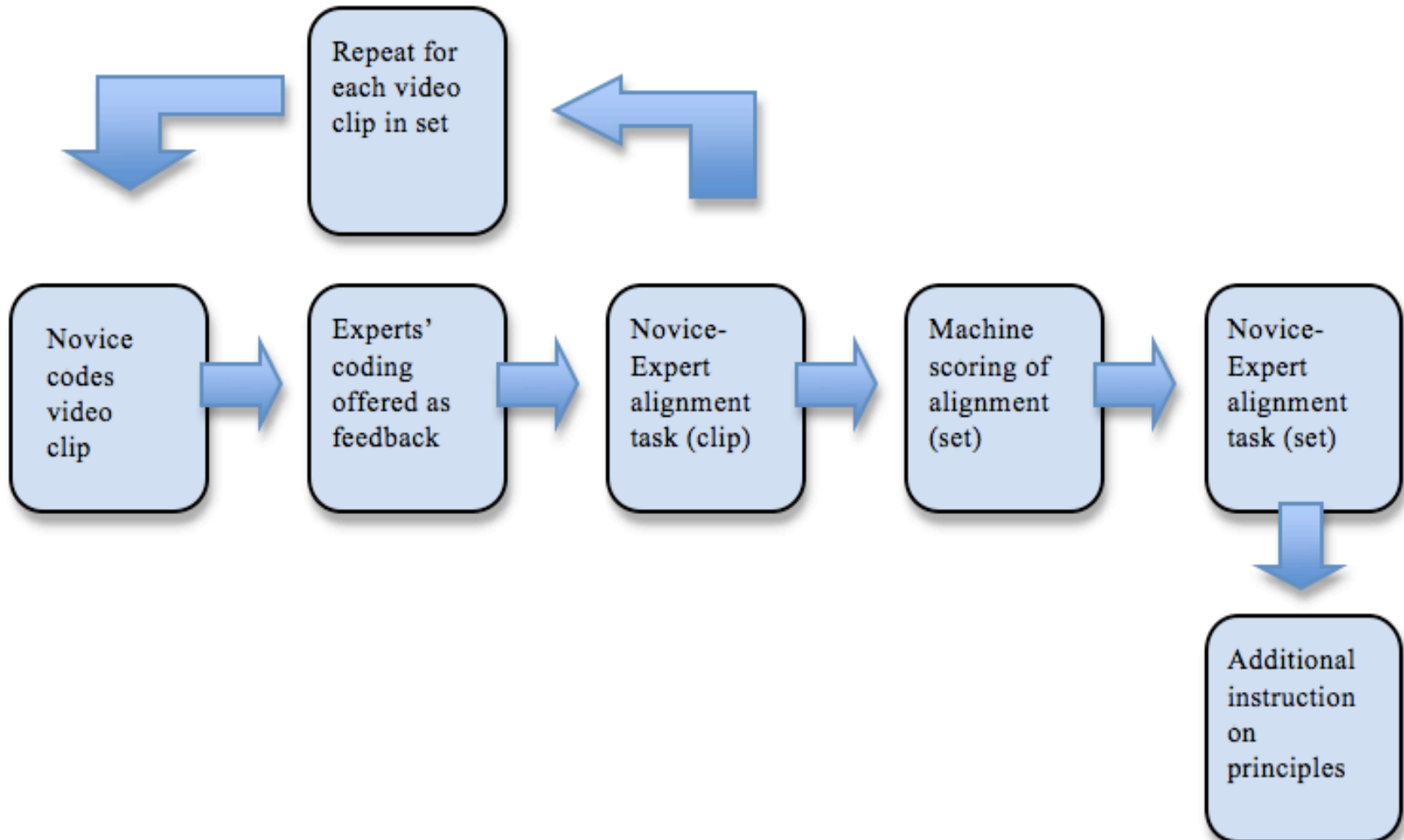
V-A/EMF Summary

- Computer-based training (CBT) of expert situation awareness
- Market: Simulator-based training
 - Military, law enforcement, security, sports, medical, social services, vehicle operation
- Business Opportunities
 - Licensing to simulation companies
 - Customized CBT development

V-A/EMF Details

- Novices watch and “code” authentic video; novices’ coding compared to experts’ coding; novices align with experts.
- Based on *Expertise-Based Training* (XBT) theory of using methods of expert-novice research to target expert recognition skills.
 - Recognition-Primed Decision-Making (RPD)
 - Sports Science

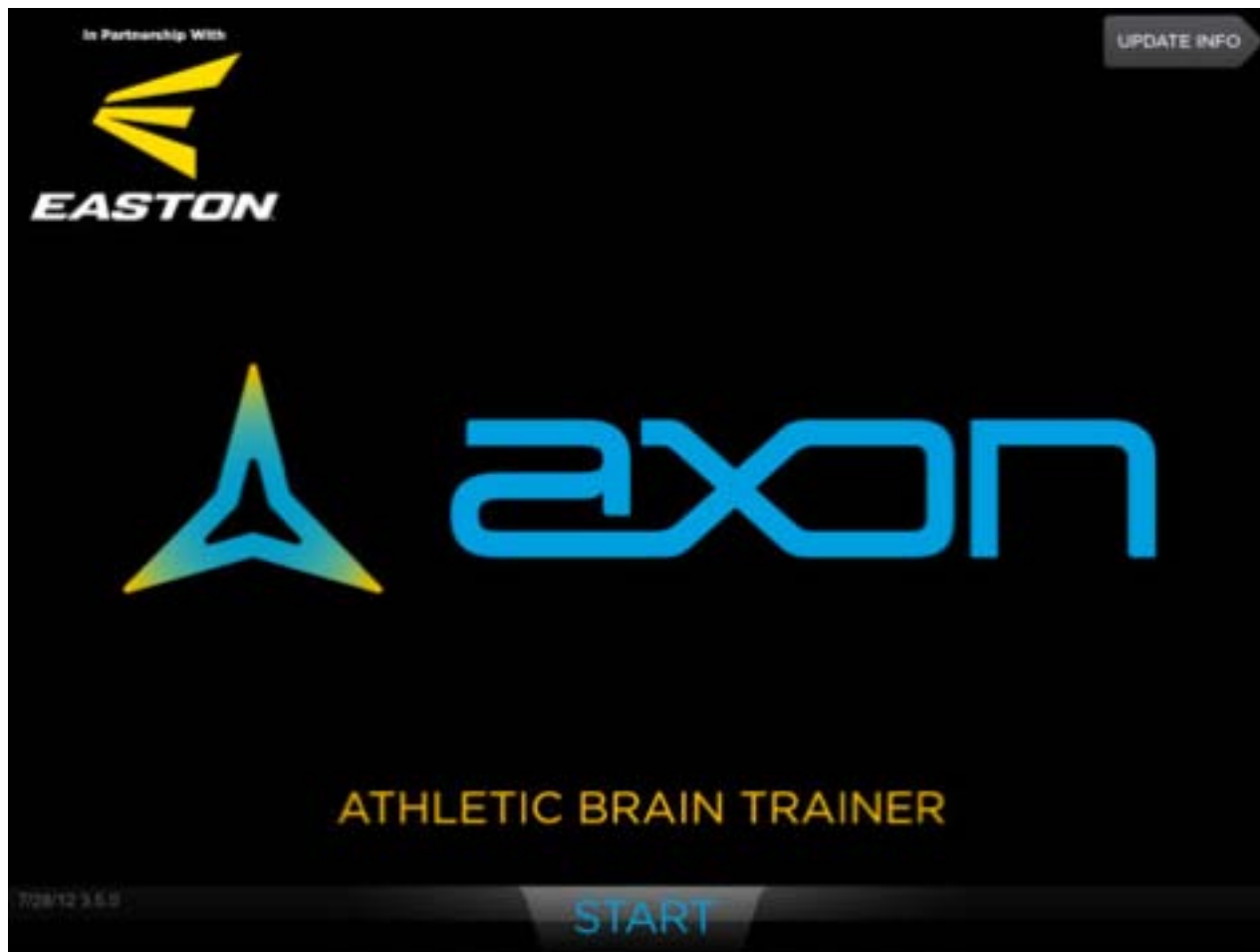
V-A/EMF as CBT



Current Developmental Status

- Progress to date
 - Sports: iPad app (Axon Sports)
 - Teacher education: TPA (SIUC)
 - Industry/Inter-agency Training, Simulation, and Education Conference (I/ITSEC)
- Developmental hurdles
 - Design and program CBT application
 - Customize application for:
 - Clients (commissioned)
 - Professions (speculative)

Axon Sports Athletic Brain Training



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Teacher “Noticing” Project



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The Competition

- Simulation companies (L-3, CAE, Raytheon)
- Advantages over simulator-based training:
 - Video rather than computer-generated display
 - Targets area of expert advantage
 - Mobile (iPad)
 - Inexpensive to develop
 - Flexible to change and update

Technology Market

- Military simulation and virtual training market estimated at \$3.5 billion.
- Extension to un-addressed professions.
- CBT application can be programmed for \$100K and solutions customized for \$10K and sold to individual companies (\$10K/ea) or institutional solution (multi-site license up to \$100K).

Technology Opportunities

- Commercialization either in competition with or collaboration with simulator companies.
- Can be added into existing simulator-based training programs and product lines.
- Application in fields associated with simulator-based training: sports, military, security, medical, emergency response, law enforcement, social services, vehicle operation.

Technology Opportunities Cont'd

- Business opportunities:
 - Sub-contract with Simulator companies
 - Develop and customize CBT application
- Start-up companies formed around technology:
 - Axon Sports
 - Military RFP? SBIR? STTR?

Intellectual Property Protection

- Interactive Video-Baseball: Patent pending (SIUC), technology licensed to Axon Sports
- Patent application covers video-simulation with temporal occlusion method specifically for the training of *pitch recognition* in the sports of baseball and softball.
- Interactive Video-Tennis: IP released to inventor.

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- For more information:
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- Questions?