

**What impact will Avatars have on the
Law Enforcement Academies of the Future**

by

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The Command College Futures Study Project is a FUTURES study of a particular emerging issue of relevance to law enforcement. Its purpose is NOT to predict the future; rather, to project a variety of possible scenarios useful for strategic planning in anticipation of the emerging landscape facing policing organizations.

This journal article was created using the futures forecasting process of Command College and its outcomes. Defining the future differs from analyzing the past, because it has not yet happened. In this article, methodologies have been used to discern useful alternatives to enhance the success of planners and leaders in their response to a range of possible future environments.

Managing the future means influencing it—creating, constraining and adapting to emerging trends and events in a way that optimizes the opportunities and minimizes the threats of relevance to the profession.

The views and conclusions expressed in the Command College Futures Project and journal article are those of the author, and are not necessarily those of the CA Commission on Peace Officer Standards and Training (POST).

What impact will Avatars have on the Law Enforcement Academies of the Future

Depending on when you came into law enforcement you grew up watching television series like 'Car 54, Where are You?', 'Adam 12', 'Quincy', 'CHiPs' or even 'Miami Vice.' These shows were entertainment and did not really portray a realistic version of law enforcement of the day. With the advancements in technology, the views of law enforcement have been changed for the better as it relates to science and developments to assist officers in the performance of their duties. The current generation and television viewers were raised on series where the technology displayed is far more sophisticated and even some would say farfetched; is it really, though?

The scenes viewed on 'CSI' or 'Southland' portray a very graphic, up close and personal view of law enforcement. Many in law enforcement would say it is a realistic reflection of what officers face and the technology available to them. The same law enforcement professionals would probably agree you cannot investigate, track down and arrest suspects, get DNA results and prosecute an offender all within an hour. As we move through the decade of the teens, however, the academy - even life beyond basic training - could change dramatically by personalizing the technologies we are already using. It can, and will, start with the police academy.

Basic Academy of 21st Century

As a young law enforcement recruit entering the police academy a few decades ago, you were probably faced with traditions put in place by those who had come before you. These traditions were probably developed by prior military personnel who became officers after serving our country. The curriculum and ways of doing business had been proven and the old adage of, "if it's not broken, don't fix it," was accepted by those in charge. This may have been

acceptable in years past, however, we can no longer accept mediocrity or continue our training in the same fashion. In truth, the recruits have changed, the technology has moved forward, and the old solutions are no longer just “good enough.”

The police recruit entering the Basic Academy today is better educated, often with college degrees. They are also more familiar with technologies readily available in society. They have grown up in an environment of advanced educational aids and gaming systems, which often mimic scenarios of everyday life. With the proliferation of technology in the workplace, it only makes sense to incorporate these advances in the training environments of officers. These advancements have provided increased connectivity for the officer on the street in a myriad of ways; with communications centers, accessing statewide and national databases, and the ability to communicate with fellow officers on adjacent beats. **Many basic academies, however,** have not incorporated much of this technology into their operations.

In the near future that may soon change. The most visible change might be the use of avatars specifically designed to work with the trainee to accelerate their learning and help them through their introduction to policing. Avatars, fictional, virtual 3D characters created using computer software will help the recruit enter their world to be a better police officers in ours. Of course, we have seen avatars in numerous forms of video gaming. Avatars can be repurposed to focus on learning, though, not just for fun. If this all sounds too fantastic, let’s look ahead a few years to see how they might be used.

Avatars and Academies

Imagine you are entering the police academy in 2020 as a new recruit and are surrounded by a vast array of technological devices. You receive a tablet device preloaded with all of the reference materials you will need during the Academy, and can bring it with you as a resource in

the field upon your graduation. Then you are introduced to the latest weapons systems the industry has to offer; finally, the moment you are waiting for...you are provided your own personal avatar. This avatar is your personal valet for the duration of the Academy and will be your resource, evaluator, mentor and counselor. If you are struggling in an area of study, all you would have to do is turn on your avatar and start the conversation. The avatar will search its database for the answer, and then talk you through the lesson until you understand. This type of avatar is already in existence in a public safety setting, and is being used in a conversational manner to improve students understanding of subjects.

The Federal Law Enforcement Training Center (FLETC) in Glynco, Georgia, employs such a system; the Avatar Based Interview Simulator (ABIS) (FLETC Journal). ABIS is designed to assist recruits with their interview skills through participation in a variety of scenarios played out before them on a large television screen. Jason Kuykendell, a senior instructor at FLETC, says “Some people are of the opinion the X and Y generations are ineffective at communicating, while others say they just communicate differently than previous generations. Regardless, the need to make the students more effective as interviewers still exists.” Kuykendell adds, the use of the ABIS system and similar teaching technology appears to be embraced more by the new generation of recruits than the traditional means of training. This program has demonstrated the benefits of avatar training by assisting students to become better interviewers, says Kuykendell. The use of avatars is not only being seen in law enforcement, but also in the academic setting.

The College of Education in Central Florida has used avatar-based training for the past few years to better educate teachers on how to handle situations in the classroom. Lisa Dieker, coordinator of the TeachME project, says the goal of the training is “to effectively eliminate the

trial-by-fire approach to classroom-management training, and replace it with something more instructive and less dangerous.” Dieker adds that, while this is not the only type of training the teachers receive, it has been embraced by most attendees. The biggest question at this point is whether the TeachME teacher training system actually improves student learning. Deiker says, “We can prove it changes teacher practice;” adding, long-term studies will be necessary to determine if the students benefit from the teacher’s program. Dieker has received very positive comments from teachers who have utilized this system as an additional training tool to the classroom environment.

In law enforcement, the “trial by fire” is at much higher risk. If avatars could be used to supplant or replace traditional modes of learning, one might consider the benefit not only to the trainee’s expertise, but the savings in personnel expenses and litigation. This type of virtual environment training could be a reality for law enforcement academies with the next decade.

Virtual environment training

While much of this research is in its infancy, researchers are moving beyond the virtual world and developing humanoids. They appear human-like and have the ability to communicate and mimic human behaviors, both in the virtual and real worlds. In a recent Training Magazine article titled “The Avatars Are Coming”, author Dr. Neal Goodman, President of Global Dynamics, writes “The social interaction that previously existed in a live classroom and was removed with standard e-learning has been brought back with virtual environment training.” (cite source) Goodman reported initial research indicates those participating in virtual training sessions “hang on” afterward to continue discussions and learning. Extending on Goodman’s comments, the reality of an avatar virtual world arriving in an academy setting is on the horizon. The success of FLETC’s avatar systems provide a foundation from which to envision their use in

interview and interrogation training, force options, and a multitude of other purpose. Research suggests the technology and advancements in development for the inclusion of avatars in an academy setting is right around the corner.

Dr. Goodman notes “The social interaction that previously existed in a live classroom and was removed with standard e-learning has been brought back with virtual environment training.” Just like the Apple iPhone incorporates voice technology with “Siri”, an academy avatar could interact conversationally to answer questions or concerns of the student. In a law enforcement academy setting your personal avatar could pop up on the technology device (smart phone, computer, or tablet) the student was using for that particular training discipline. For instance, if the student was reviewing a recent block of instruction on criminal law or search and seizure, the avatar would pop up on the screen and interact with the student. The avatar would be able to answer questions or provide additional information to the student on any topic related to training. Additionally, the avatar could become an invaluable resource in the field as the recruit transitioned to the role of an officer. The device would have all relevant resources available to the officer including the most current legal sourcebook, vehicle code and penal code. The officer would be able to ask the question to the avatar, and the information would be relayed back to the officer by the avatar. This type of technology would be very similar to that of “Siri” which is found on the latest version of Apple iPhones. To assess the possible impacts and advantages of avatars used in police training, specific issues were posed to experts.

The Expert Panel

A panel of experts convened to discuss avatars as part of future police training models. The panel consisted of a Police Academy Director; a Computer Specialist from a national medical training company, an Academy Tactical Lieutenant, a Retail Sales Manager in the law

enforcement arena and a retired police Chief. The group determined complete buy-in from instructors and students, along with identifiable funding sources needs to be established before avatars could be employed in an academy setting. Law enforcement, though, has an opportunity to partner with one of many laboratories in the development of this training tool. The collaboration amongst government, academia, and the private sector may be the answer to financial question, “How are we going to afford this type of technology?”

The group agreed the avatar could be very useful to train and develop the new recruit as a supplement to instruction. Panelists discussed a recruit who was not retaining materials would have the ability to discuss the challenges with his own personal mentor and coach - the avatar. The recruit could have these discussions on his own time and in the comfort of his own living quarters versus being called out by staff in front of his peers. The Academy instructor would then receive an electronic message update from the avatar on the recruit’s status of learning. This could potentially have a positive impact on the overall learning environment at the academy. The group remarked that FLETC noted students felt the use of the ABIS training was invaluable to prepare them for in-person interview experiences.

The expert panel felt the overwhelming factor for success or failure of this resource was the economic conditions of the academy. Internal and external stakeholders would have to positively support the program and educate the public and elected officials from the very beginning as to its capabilities and use. This would include involving the media and garnering its support. While the group thought the overall idea of an avatar in an Academy was a good idea in training, the support of the program might wane based on fiscal challenges. Some may view avatars as a phenomenon in a far off virtual world or in a sci-fi experiment, but they are already being used in many different applications in gaming systems. The challenge now is to

bring them into a 21st century academy setting where they are welcomed to augment the level of training already in place.

After getting past the above issues, the panel became excited at the potential uses of an avatar. Discussions evolved around the different facets of training it could be used in, such as: a coach reviewing materials and providing quizzes; a coach at the shooting range with connectivity to the weapon and the student; a coach that could be plugged into the patrol car and the student to provide diagnostic information about the student's ability to operate the vehicle; and a coach the recruit could take to the field with them during the field training process to aid in continuing education. As with any new technology, however, challenges remain.

Challenges of Avatar Trainers

There are many challenges to overcome in utilizing avatars in a training environment; chief among them are finances associated with research and development. In these very tough economic times, it will be very difficult for any one agency to take on such a project. Just as FLETC did with the development of their ABIS program it will take collaboration from many different disciplines to implement such a program. The research is already being conducted by several laboratories throughout the Nation on developing avatars as an interactive platform. With the development of converging technologies of biotechnology, nanotechnology, information technology, and cognitive technology the opportunities are present for a partnership with one these laboratories and the law enforcement community.

Other issues raised by the expert panel included potential ramifications from the negative publicity with an avatar's use; as well as if the avatar provided inaccurate or improper training. Also, would training records or video be maintained from the avatar for future discovery in a legal action? From a security standpoint, the Panel discussed the vulnerability of the control

system in the avatar and the potential for hacking from outside undesirable sources - either disabling the system, corrupting the software or modifying the training parameters, creating an unsafe environment.

While technological improvements are expected to advance exponentially in the coming years, we are also in tough economic times. Among the concerns is the potential liability of an avatar injuring recruits or going astray from the curriculum; breaches of security into the avatar system where information is stolen or manipulated and the ability to identify funding sources to cover the expenditures of research and development. With this technology in its infancy and expanding every year, the possibility of a partnership or collaborative effort with research laboratories and/or the military provides a viable option for funding such a project. Imagine this avatar providing consistent, verifiable training to your recruits not only in the Academy, but also as a resource in the field when they are making those low frequency, high liability decisions.

Conclusion

The avatar could become a reality in an Academy near you. The benefits of this type of virtual environment world in law enforcement could be far reaching and improve the initial and continued educational training officers receive throughout their career. The implementation of this platform of training rests solely with the imagination of our future law enforcement leaders. The question is, do we want to lead the future and embrace the available technological advances as they develop or run the risk of missing an incredible opportunity to improve our industry.

Abraham Lincoln once said, "The best way to predict your future is to create it."

Imagine the benefits as a new recruit entering the Academy and receiving your own personal avatar coach and mentor. This avatar would be able to answer your questions, help you study, be a resource library for every manual and book imaginable, and be programmed to stay

within certain parameters and provide consistent, on-going, and verifiable training to our new officers. It doesn't have to stop at the Academy gates either. This avatar can become the new officer's partner and resource in the field. When encountering a high risk, low frequency issue for the first time and a decision needs to be made quickly, our employees rely on their training and experience. The possibilities of a better-trained, highly skilled police officer with an avatar partner may be the future of police training everywhere.

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