Preparation for the Digitization in the Coaching Process

Artificial intelligence in the coaching process – how to help the coaching process

When we are together in Lithuania, I will give presentations on machine learning and artificial intelligence in coaching. Specifically, you will learn about supervised and unsupervised learning techniques in the analysis of tactical movement in soccer. The supervised learning methods will be artificial neural networks and decision classification trees. These will be used to predict the outcomes of passes and possessions. The unsupervised learning techniques will be cluster analysis and self-organising feature maps. These will be used to classify possessions into classes not previously anticipated by human experts. These machine learning techniques will be contrasted with algorithmic approaches to recognizing tactical movement by specifying criteria for certain tactics to be taking place based on the on-field activity of the players and the ball.

Prior to the session, I simply want you to watch a match in a team sport of your choice and take note of different attacking and defensive tactics that you can see. For one defensive tactic and one attacking tactic, make some notes on the following:

- How did you recognize the tactic in the match you were observing ?
- How did you recognize the start of the tactic ?
- How did you recognize the end of the tactic ?
- Were there any occasions where a tactic was attempted but not successfully completed ? If so what was it that made you decide the tactic was being applied ?
- Were there any occasions where it was not obvious if the movement was due to tactical decisions of the players ? In other words, were there occasions where movement may have looked like the movement perform if the tactic were applied, but on these occasions you are not confident that the team were applying the tactic, and the similar movement patter may be coincidental.
- What would be the main challenges for you to tag the tactic using a performance analysis ? For example tagging a video of the match in Hudl, Dartfish, Nacsport, Focus, etc.