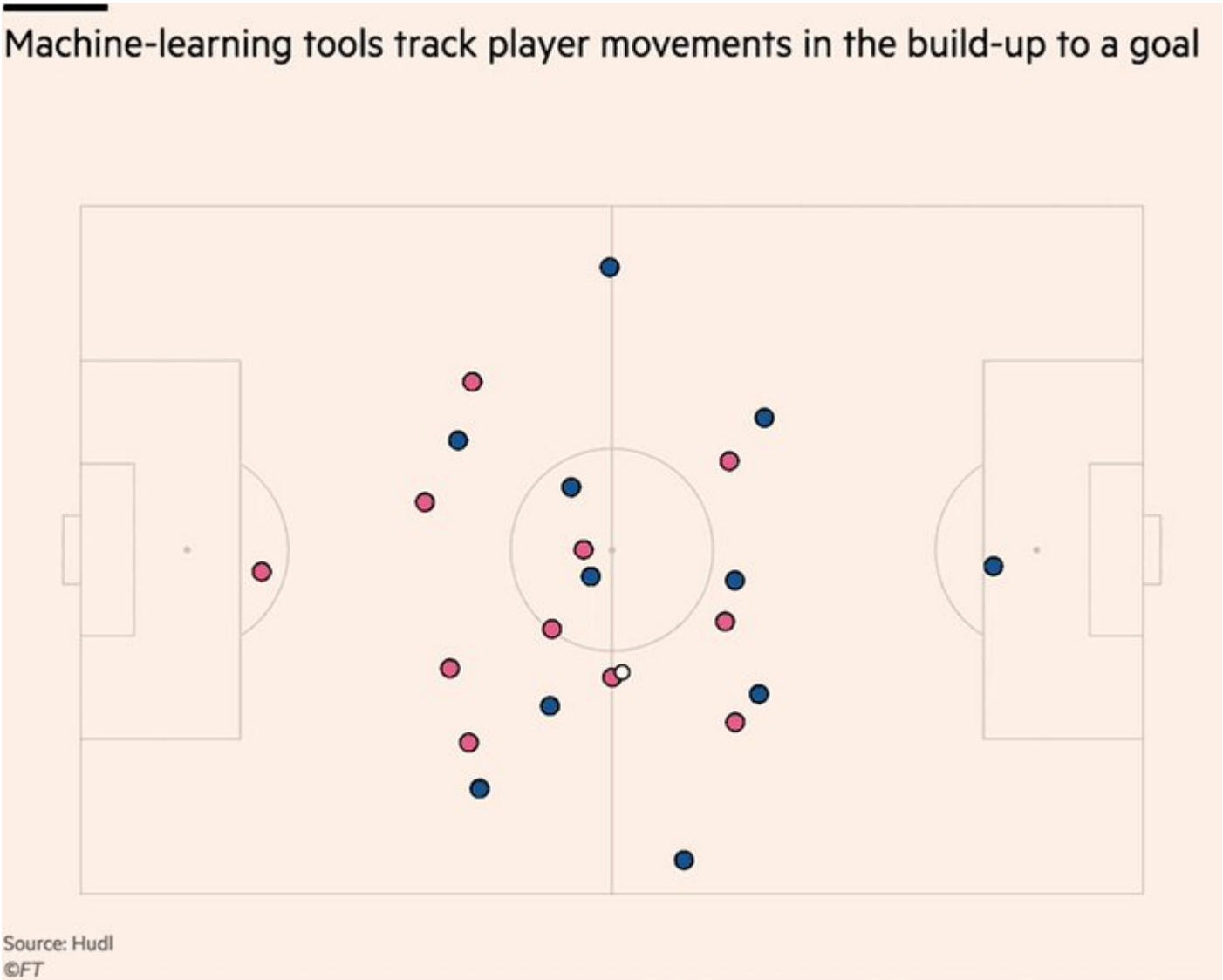
Twitter Thread by John Burn-Murdoch

John Burn-Murdoch
@jburnmurdoch

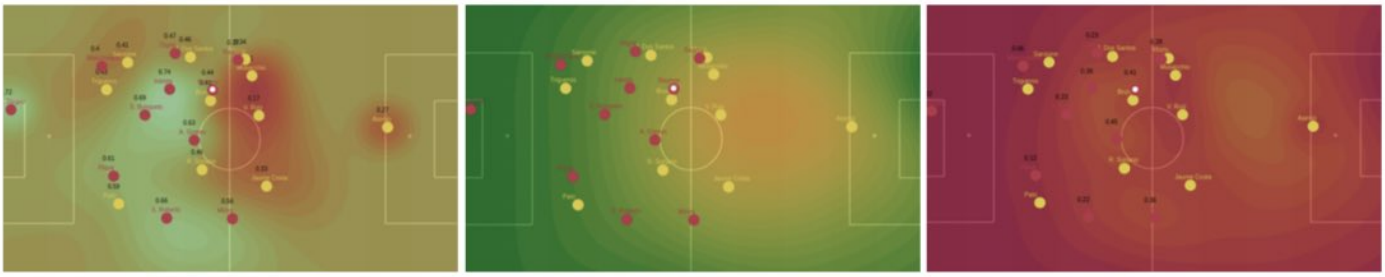
Really enjoyed digging into recent innovations in the football analytics industry.

>10 hours of interviews for this w/ a dozen or so of top firms in the game. Really grateful to everyone who gave up time & insights, even those that didnt make final cut ■■■■ https://t.co/9YOSrl8TdN



For avoidance of doubt, leading tracking analytics firms are now well beyond voronoi diagrams, using more granular measures to assess control and value of space.

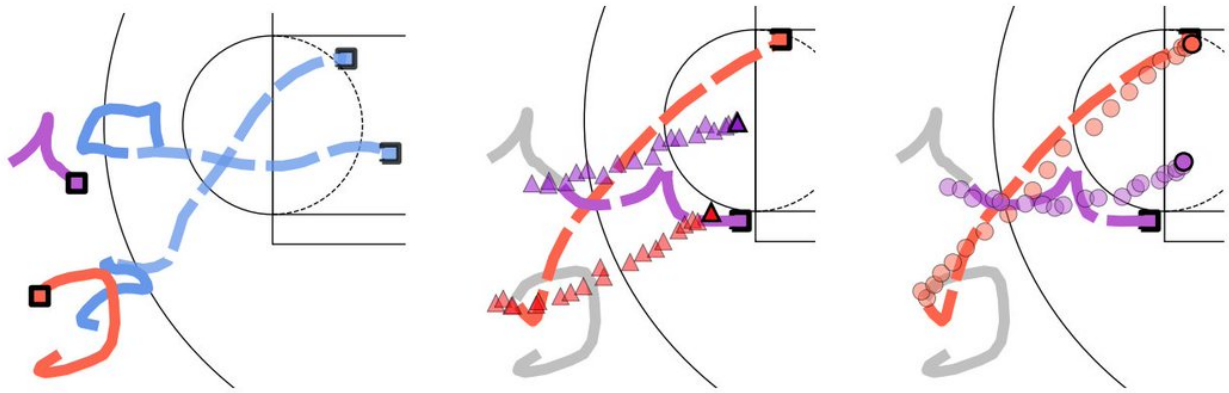
This @JaviOnData & @LukeBornn paper from 2018 referenced in the piece demonstrates one method https://t.co/Hx8XTUMpJ5



(a) Pitch control surface **(b)** Pitch value based on ball position **(c)** Value of the owned space as product of pitch control and field value

Bit of this that I nerded out on the most is "ghosting" — technique used by @counterattack9 & co @stats_insights, among others.

Deep learning models predict how specific players — operating w/in specific setups — will move & execute actions. A paper here: https://t.co/9qrKvJ70EN



a) Input b) VAE baseline c) Our method

Fig. 1: a) Given a 2D trajectory history of moving agents (solid lines), and the future motion of a subset of the agents (blue dashed lines); our **prediction task** b) is to generate the most likely motion of the other agents (orange, purple dashed lines). Standard approaches are unable to capture the influence of the group motion (triangles). c) Our method improves performance by incorporating context-specific information (circles).

So many use-cases:

1/ Quickly & automatically spot situations where opponent's defence is abnormally vulnerable. Drill those to death in training.

2/ Swap target player B in for current player A, and simulate. How does target player strengthen/weaken team? In specific situations?