Researching the potential of scenario planning games to visualise criminal networks

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Seed Money Grant 2016
• Criminal networks are converging illegal drugs trade, wildlife poaching and trafficking, and human trafficking (Van Uhm 2017).

• Need for an analysis of

1. converging trafficking networks and routes,
2. important nodes in these expanding criminal networks, and
3. the way that the networks are situated within a societal context (particularly Europe – a central hub for illegal trade)
Dynamic visualizations/simulations of these networks and trafficking routes that allow for a “playing around” with different **scenarios** of criminal activities to come to:

1. new insights about potential **major players** in the network (“Linchpins”),
2. anticipated **criminal activity**,  
3. and consider the viability of **potential countermeasures**
The Aim of the Proposal:

- Consolidate an **international research network** and realise a larger grant application for research on the use of games and scenario planning in the visualisation and identification of criminal networks.

1. **Theoretical** and historically informed exploration of networks with an eye for the various ethical implications of foregrounding certain players in the network

2. **Development** of a scenario planning game/simulation capable of modelling complex networks and their dynamic interactions

3. **Validation** of the scenario planning game through trials with connected LEAs and their ability to come to new insights about the criminal networks and their behaviours
Questions of the Proposal:

• How do we deal with the challenge around the access to data?

• How do we decide upon the model’s parameters (or do we leave this to the LEAs)?

• How does a playful attitude allow for new insights into the network and its dynamics?

• How do we validate the usefulness of various scenarios?
From criminological and ethnographic research:

- Social relations and **networks** as underlying criminal relations: “nodal offenders,” “behaviours,” “hubs”
- Fluidity of crime (**social construction** of crime, criminal practices); necessity to look at human actors and their contexts (villains as victims; masculinities, moral codes)
- Increase in human vulnerabilities and victimisation due to preventive efforts; dangers of the push by **control-and-prediction** industry
**Tension** between simulation games, scenario planning, and law-enforcement objectives:

- Simulations and electronic games: pre-selection biases, illusion of objectivity, **limitations of modelling**, simplifications, stereotypes
- Big data semantics: how to automate vocabularies; issues of **error-propagation**, law enforcement **dataset secrecy**, inaccessibility
- Scenario planning mostly useful to detect decision making; create a gameful attitude, rope in key stakeholders; rather generate **multiple plausible futures**
Horizon 2020 – Secure Societies

• practical/technology transfer (lacking a research component)

Also Law Enforcement Agencies are looking for practical applications

I.e. researchable questions are turned into a priori assumptions (highly problematic!)

• Playful attitude helps
• Scenarios can function as predictors of criminal activity
Forking into two research proposals:

1. Exploring the tension between scenario planning and law-enforcement objectives (CREST grant application)

2. Exploring assumptions around the potential of simulatory games regarding scenario planning and tackling criminality (new application)
Project Title: Imaginative Scenario Planning for Law Enforcement Organizations

- PI: Prof Math Noortmann, Coventry University
- Co-PI: Dr Juliette Koning, Oxford Brookes University
- Co-I: Dr Ingrid Hoofd, Dr Joost Vervoort
- UK National Crime Agency (NCA), Dutch Landelijke Eenheid (National Unit)

Total cost. = £112,301.40
• Scenarios as “stories of possible futures” (Ralston and Wilson 2006)
• Complex systems fundamentally uncertain; attempting prediction as problematic (Van Notten et al. 2005)
• Control-and-prediction strategies in law enforcement practices in fact exacerbating risk (Beck 2008)
• Scenario planning fosters imagination, creativity and holistic thinking in law enforcement organizations

CREST rationale: from Expert Meeting insights:
Exploring game and simulation assumptions:

That the *simulatory* nature of the game will allow for:

- Combining mental as well as social parameters,
- Tapping into the very same mediated technical networks as criminal actors may use,
- Possibility to generate representations of spatio-temporal evolution of the criminal network.
That the *playful* nature of the game will allow for:

- Exploiting the iterative participatory process by domain experts necessary to generate sufficient correlations,
- Exploratory engagement leading to findings that are otherwise unexpected and/or counter-intuitive,
- Visualising consequences of future policing activity in an orderly and easy-to-view manner,
- Making detective work less tedious, as well as easier to use than previous computerised simulation models.
Exploration of challenges and assumptions needed

• Drop application Horizon2020 call *Fight against crime and terrorism* (SEC-12-FCT-2016-2017): too technology-transfer, too in line with control-and-prediction

• Use CREST grant outcomes?

• Find more research-oriented call? Eg. NWA 58. *Wat zijn de patronen en oorzaken van criminaliteit en hoe vallen deze te beïnvloeden?*

• Find alternative consortium partners?