SAT
Strategic Advisors for Transformation AG
Gesellschaft für Management Consulting

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The Syria/Refugee Complex

Decision Support through Simulation-based Complexity Management and War Gaming

Background

In spite of the fact that the ongoing violent conflict in Iraq and Syria has received massive media attention, fuelled in part by the multi-media-oriented role played by ISIS, it almost seems as though the current refugee crisis has taken Western European governments by surprise. However, is it surprising at all that the European Union is currently flooded by refugees and immigrants? It seems so. But, with hindsight, it is not. And with simulation-based foresight under deep uncertainty it would not have been surprising in the first place. Nevertheless, important decisions with undesirable side-effects have been made, and swift action is still being awaited.

Some argue that Europe has to a large extent co-created the current wave of refugees, especially to Germany, by not taking swift action to help refugees in and near these conflict-torn countries. When analyzing the situation in these countries and their root causes, one may as well argue that what is happening today is to a large extent caused by the implicit and explicit support of corrupt minority regimes, unsuccessful military interventions, and the believe that freedom automatically leads to democracy. Or stated differently, ISIS may as well be seen as a reactionary movement against corruption and impurity, based on a fundamentally different value system, and using smart reinforcing strategies and tactics that allowed to take over parts of failing states. ISIS not only has systemic roots, it appeals to different values, and it bases some of its successful strategies on important systemic insights. This is hard to fight with weapons alone. It requires insight and looking at problems from fundamentally different perspectives.

Apart from being overwhelming and possibly long-lasting, the resulting refugee crisis is systemic too. And the situation is urgent: we need to act now to be able to face future waves of refugees and immigrants. But how? What do we need to do to deal with the refugee crisis without making it an even bigger humanitarian crisis that it already is? How do we keep it within manageable proportions? How can we mitigate or solve this humanitarian crisis? How do we ensure that it does not turn into a long-term problem for our nation states, citizens and the former citizens of these conflict-torn regions?

The simulation-based war gaming model we propose will allow participants to virtually experience many different plausible futures and will allow them to assess the possible consequences of their virtual policies and decisions across many such futures. Suites of plausible simulation models related to these conflicts and the wave of refugees they cause are used to generate these scenarios, as well as the latest machine learning techniques to identify sets of distinct exemplar scenarios, and key leverage points for high-level policy makers. In other words, this exercise will not only allow to assess the underlying systemic mechanisms, it will also allow participants to experience the effects of decisions and policies they may make, and test the robustness of these decisions and policies across hundreds of thousands of plausible futures.

War Gaming Simulation Model: The Syria/Refugee Complex

Our dynamic simulation model focuses on the short and long term political, economic, and social consequences of the current refugee and migration crisis, i.e.

- Consequences of the Syrian conflict (refugees)
- Refugee flows between, and accumulation in, countries
- Capacity struggle in countries with high inflows
- Effects of policies and communication thereof
- Consequences of futures & policies: capacity shortages (administration, housing, police), costs, social tensions, political instability, …

The dynamic simulation model can be used as "Test-Bed" for:

- Further plausible developments in Syria & elsewhere
- Potential effects of European, national, regional policies
- ISIS and war in Syria (causing refugees flows in the first place)
- Foreign fighters to ISIS and returning foreign fighters (Syria and Iraq)
- Refugees from Pakistan/Afghanistan/Africa
- Refugees on their way from Turkey and Greece to Northern Europe (Balkan routes)
- Refugees in various European countries and resulting socio-economic-political problems and tension

The following countries are modeled: Turkey, Greece, Balkan, Hungary, Austria, Germany, Netherlands, Germany

War Gaming Simulation Model: Model Ingredients

The dynamic simulation model deals with (1.) internal policies within the European countries, (2.) policies with respect to national borders as well as (3.) policies focusing on the effects of ending the conflict in Syria. The following key performance indicators for what-if scenarios are set up:

- Inflow per month for each country and outflow per month for each country
- Net flow per month for each country
- Cumulative number of refugees for each country
- Cumulative number of refugees per capita for each country
- Economic and political stress for each country

Advantages of Simulation-based Complexity Management and War Gaming

Our War Gaming methodology combines the most powerful modeling techniques available today and embraces:

- Holistic & systemic modeling paradigms to capture volatility and dynamics of all complex systems
- Optimization of existing operative policies, structures, and processes
- Strategic decision support, adaptive crisis management, and emergency response preparation
- Fast and low cost solution which is easy to implement, no special training required to operate simulation models

Services offered with regards to War Gaming Scenarios

While setting up War Gaming Sessions, we provide the following services:

- Model-based scenario generation and scenario selection, Exploratory model development workshops
- Sensitivity analysis, stress testing, resilience analysis, agility & systemic fragility, and policy robustness testing
- The "Bigger Picture", forward visibility and "Strategic Radar" for pre-emptive measures; Early Warning Systems
- "Management Flight Simulators" to assess and explore systemic vulnerability
- Model conception workshop (2-3 days), fast model development (1-3 months); models can be used by the client

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