more than one pet. Following Hurricane Katrina in 2005 thousands of animals received veterinary medical care at the Lamar Dixon Animal Shelter in Baton Rouge, LA. Social networking was utilized by responders to obtain supplies yet current social media capabilities were not utilized to enhance veterinary medical response and care at the largest disaster animal shelter in US history. Several challenges (volunteer management, lack of veterinary supplies, and referral of critical veterinary patients etc.) in veterinary disaster response could be met through utilization of targeted social media messaging. Social media has the potential to enhance the efficiency and quality of disaster veterinary medical response now and into the future.

(A334) Disaster Medicine Center Evolution (Structure and Activities)

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The requirements of coping with emergencies on the national level include the necessity to modify the structure of disaster medicine centers that deal with major emergencies. Sharing the responsibility for the management of emergency response and preparedness also is important. The evolution of disaster medicine service is key for disaster risk activities. The goal of this presentation is to show the center subunits and their tasks based on strict management under the leading the Ministry of Health and Social Development of Russian Federation. The main units of the disaster medicine center are proposed in view of the relationship to the regional and municipal centers and local medical facilities. The participation of corresponding-level centers in emergency response is dictated by the emergency scale, characteristics of the event, number of injured, number and capacities of local (regional) medical facilities, and other needs in emergency response management. The system of supply management during emergencies comprises a network of warehousing conserving the federal, regional, and local reserves of medical products is revised regularly. The new, information-sharing, automatic, geo-informational system manages the distribution of supplies for any event and evaluates the presence of resources and personnel around any focal point where any natural or technological emergency occurs. Such an informational system is being discussed for the revision of supplies and management on the international scale. The issues of field practice are proposed and suggestions on the modern coordinating mechanisms will be discussed.

(A335) Emergent use of Social Media: A New Age of Opportunity for Disaster Resilience

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Background: Social media (SM) are forms of information and communication technology disseminated through social interaction. SM rely upon peer-to-peer (P2P) networks that are collaborative, decentralized, and community-driven transforming people from content consumers into content producers. The role of SM in disaster management galvanized during the world response to the 2010 Haiti earthquake. (Pew 2010) During the immediate aftermath, much of what people around the world were learning about the earthquake originated from SM sources. (Nielsenwire 2010) During the first 2 weeks following the earthquake, "texting" mobile phone users donated over $25 million to the American Red Cross. (Sysomos 2010) Both public and private response agencies used Google Maps™. Millions joined MySpace™ and Facebook ™discussion groups to share information, donate money, and offer support. SM has also been described as "remarkably well organized, self correcting, accurate and concentrated", calling into question the ingrained view of unidirectional, official-to-public information broadcasts. (Sutton, et al 2008) SM may also offer potential psychological benefit for vulnerable populations gained through participation as stakeholders in the response. (Sutton, et al 2008) (Laor 2003) **Discussion:** However, widespread use of SM also involves several important challenges for disaster management. Although SM is growing rapidly, it remains less widespread and accessible than traditional media. Also, public officials often view person to person communications as "backchannels" with potential to spread misinformation and rumor. (Akre 2010) In addition, in absence of the normal checks and balances that regulate traditional media, privacy rights violations can occur as people use SM to describe personal events and circumstances. (Palen 2007)

(A336) Sustaining Telecommunications Capability and Capacity during Acute Phase of Disasters and Disaster Responses

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Background: Telecommunications plays a critical enabling role in disaster response, both for the local population and for responses of external origin. However, it is common for telecommunications capacity to be reduced or disabled by the disaster or emergency. Meanwhile, the disaster stimulates demand for any remaining capacity, often resulting in total loss of telecommunications capability during the acute phase of a disaster and its response.

Discussion and Observations: The Serval Project is addressing this through the implementation of a mesh mobile telephony system that is compatible with some existing mobile telephone handsets, and can be integrated into many more models without changing handset hardware designs or cost. This technology allows mobile telephones to directly communicate with one another, and allows telephone calls to be made without infrastructure beyond the telephones themselves. Our Distributed Numbering Architecture allows the telephones to use their existing telephone numbers, so that communications can continue immediately and without impediment when needed. The telephones self-organise, and relay calls for distant telephones, thus forming their own resilient telecommunications

infrastructure that is able to remain operative during all phases of a disaster and its response, thus addressing an important vulnerability of the existing infrastructure-oriented approach to telecommunications. We see applications that include supporting communities in maintaining communication in order that medical and public health effects of emergencies can be responded to more effectively and potentially providing ready access to communications for distributed teams of emergency health and humanitarian workers in disasters. Our goal in creating this technology and removing all barriers to adoption is to facilitate its ubiquitous inclusion in new mobile telephones, so that we can leverage the mass production of consumer electronics to create a resilient telecommunications capacity that can be deployed anywhere without supporting infrastructure. This would enable the creation of, for example, networks consisting solely of used telephones.

(A337) State Failure as a Factor in International Global Medical Operations: Network Modeling

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Introduction: In order to counteract disasters and emergencies, it is necessary to build cooperation and collaboration among all entities and actors. Field teams of rescuers require support from the State experiencing a disaster. The responses to the earthquake in Haiti demonstrated a lack of cooperation and collaboration and the rescuers encountered concomitant difficulties. Thus, the problems in the field are not only related to natural and technological aspects, but also social and political contexts. It is time to explore the role of the impact of State power on national and international disasters and emergencies. One modern and fruitful instrument for analysis of these complicated social and group processes is Complex Network modeling. Complex Network tools have been applied successfully to understanding and counteracting such threats as they relate to the spread of infectious diseases and/or to terrorist activities. Another significant utilization of the Complex Network approach is to develop good governance, management, and organizational processes in national and corporate landscapes. **Methods:** Based on a Complex Network Scope, a novel, three-layer network model of public connections for diverse State regimes for further simulation is proposed. Quantitative assessments and practical processes should be implemented for countering global disasters using international and interdisciplinary teams. Contrary to the known hierarchical layer approach for knowledge acquisition, this new model describes an overall national Society Network by dividing the approach into the three layers: (1) Formal (State), as hierarchical governments structures; (2) Informal (presented by different long-term sustainable link groups); and (3) Informal (aquatinters with short term links ("weak ties").

Results: According to each of these layers, one of three types of network topologies exist: (1) hierarchical; (2) scale-free; and (3) random, respectively.

(A338) Time for Order In Chaos! A New Model to Capture the Role of Foreign Field Hospitals after Disasters

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There is a paucity of reliable data on the healthcare needs over time after sudden onset disasters (SOD). There also are no widely acknowledged definitions and data on deployment, use, staffing, and management of foreign field hospitals (FFH) after such disasters. Further, the efficiency, relevance, timing and cost-effectiveness of FFHs in the aftermath of SODs have been questioned. This was again highlighted after the 2010 Haiti earthquake, when the situation, to a large extent, was chaotic, uncoordinated, and care was not adapted to needs. These shortcomings create severe difficulties with respect to studying the real impact of medical aid after a SOD and optimizing the international medical relief efforts to be applied afterward. This article aims to present a health system approach to the deployment of FFHs after a SOD, here applied to an earthquake. By reviewing the literature and drawing on field experiences from SODs, a conceptual framework was developed that capture the essential dimensions in such a model, including: (1) classification standardization of levels of care in FFH (1–4); (2) time-phases after the event (1–5); and (3) the need for health care based on the assumed burden of disease and, hence, need for medical care in relation to the socioeconomic context. The model currently is being tested on a number of international experts in the field. By using this framework, the authors hope to create: (1) a common platform for research within this area; and (2) a tool for international actors that will facilitate a development toward an international coordination body in the future. As such, the framework hopefully will offer an opening to a structural approach to the above mentioned difficulties, support international actors in their SOD preparations and deployments, and put them in a better position to optimize the resources available to the targeted population.

(A340) The Role of Field Hospitals in Severe Environments — Guidelines to Prepare and Build a Field Hospital during a Disaster

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Introduction: Facing the threats of disasters due to natural hazards and terrorist attacks, communities and nations are strategically preparing to respond rapidly to such incidents with the appropriate medical services. Both natural and complex disasters may produce a massive number of casualties that outstrip