

Conclusions and Recommendations for the UN Community

In particular this includes risk mitigation strategies, more strict policies for data storage and data transfer, inclusion of digital signatures in data and software artefacts, in such a way data and software can be traced, Proofs of Retrievability for data integrity, and last but not least, third party monitoring and assessment of quality of cloud services.

Matej Myška, Pavel Koukal, Zuzana Vlachová, Ondřej Woznica:

With regard to the principle of predictability of law and legal certainty, we recommend that the United Nations push for the negotiation of an international treaty that would harmonize the basic issues of limiting the liability of information society service providers.

Niewiadomska-Szynkiewicz, Amanowicz, Wrońska, Kostkiewicz:

The Internet community growing and decreasing the age of people connecting to the global web raises enormous social risks, thus ensuring cybersecurity maintains a huge challenge for international organisations, governments, social communities and education systems.

To function effectively in an intelligent networked society and seize digital transformation opportunities, the community needs new and constantly updated digital competencies. Activities that improve digital competence and prevent cyberspace threats should be interdisciplinary and addressed to many groups of recipients with different needs, abilities, and ages. Universal information and media education is a socially signalled need and has its legislative and economic justification. Education, as well as preventive and protective activities, bring more practical benefits. They are more effective and less costly than reducing or eliminating negative individual interactions, social neglect or the effects of crime.

The critical tasks include raising public awareness of online threats, adopting legislation to the changing reality, international cooperation of government representatives and commercial companies, and investment in research and exchange of knowledge and experience.

Effective detection of network attacks requires collecting and processing as much data containing malware samples and vulnerabilities as possible. It is necessary to develop advanced algorithms and build efficient computer systems to support this process.

Particular emphasis such be put on development, and successful implementation of deep learning techniques combined with big data processing

and new computing paradigms (cloud, fog, edge, dust computing), enabling to correlate a broad range of security contexts and knowledge mining to create cyber threats intelligence in anticipation of cyberattacks.

Accepting the truth of information ruling the world as an empty truism allows us to lull one's vigilance to the most significant threat of modern times: the deprivation of truth over falsehood and the denial of the facts from reality. The losses that affect us are visible at every activity level, from value-creating through social activity to the advantage of technological development. It seems necessary to rebuild the influence of authority and factual-informational coherence. It is essential to recreate, or perhaps create, on a scale previously unknown, value chains in the flow of information. The problem we face is multilayered and multifaceted, and responding to a threat on a global range without international cooperation, is an optimization task beyond the scope of possible solutions. It is necessary for us to put factual information on the pedestal, laboriously knocking down misinformation and distorted information and technologically deficient ("indebted") information systems.

Let's consistently build high-quality supply chains to process the 'gold of modernity' - information - safely and reliably. Let's expand trust structures, introducing each layer control and assurance mechanisms such as the four-eyes principle, trusted third party services, peer-review, Fact-Checking Networks, conformity assessment and attestation.

* * *

The areas of future UN activity, as can be seen, could be many. Undoubtedly, the future of the UN is technological, but only the decision-makers of the UN will be able to decide what technology it will be and how far it will meet societal needs. We invite you to join the discussion, we are aware that the development of technology and law is inevitable.

Dariusz Szostek, Mariusz Załucki

