CyberGreen

8 years of Designing and Establishing a Collective Risk Reduction Movement for All

How can we build a safer and more resilient internet for ALL with a science of **Cyber Public Health?**

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Raising transparency for policy decisions
Threat landscape v.s. Risk landscape

Cyber Threat Landscape such as
Digital Defense Report etc

CyberGreen's Metrics
and Measurement focus
IIHMF

We are unable to assess the effectiveness of mitigation efforts, identify the wider determinants of cyber security risk, or predict future outcomes.

We do not have vast quantities of robust data for assessment.

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BRING SYSTEMIC RISK DATA & METRICS TO CYBERSECURITY DECISION-MAKING

Cyber Norms Initiatives such as UNGGE and Paris Call both stating to call for Cyber Resiliency metrics and indexes.

ECOSYSTEM-WIDE BENEFITS

From app developers to government officials to cybersecurity professionals, access to more comprehensive data and metrics would enable better decision-making, more efficient use of resources, and more secure systems.

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FOCUS ON SHARED SYSTEMIC RISKS

Internet Infrastructure Health Metrics Framework (IIHMF) - set of models and metrics methods to measure the Internet infrastructure critical components health.

IIHMF:

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Our theory of Change:
We apply a Public health Style approach to address Cybersecurity problems

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A NEW PERSPECTIVE

The emergence of Public Health and Epidemiology revolutionized the practice of medicine in the 19th Century. They shifted the perspective and approach in four ways that are particularly relevant to cybersecurity.

Adopting a public health-style perspective that embraces **data-driven investigation**, **population-level analysis**, and **preventative approaches to shared risks** would be transformative for the practice of cybersecurity.

Systematic Testing

Experts could systematically test associations between risk factors and cyber threats

Measure and Compare

Cybersecurity professionals could truly measure and compare the effectiveness of interventions.

Preemptively Address Risk

Organizations and companies could adopt preventative measures that reduce both local and systemic risks to make the internet more secure and resilient for all.

More Effective Enterprise Security

The data and analytical techniques developed through Cyber Public Health research will enable enterprise security teams to better evaluate existing practices, test alternatives, and better predict future threats.

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ESTABLISH A SCIENCE OF CYBER PUBLIC HEALTH and MAKING A MOVEMENT

DATA & METRICS

Science starts with data, so our top priority is gathering a more comprehensive set of data and standardizing it for researchers.

SOCIETY-LEVEL VIEW

A society-level view of risks will revolutionize every aspect of cybersecurity, including reducing systemic risks, addressing existing inequities, and making the internet more secure and resilient for all.

INSTITUTIONS & INFRASTRUCTURE

We need institutions at every level of government, international NGOs, academic institutions, and private organizations to support a mature science of Cyber Public Health.

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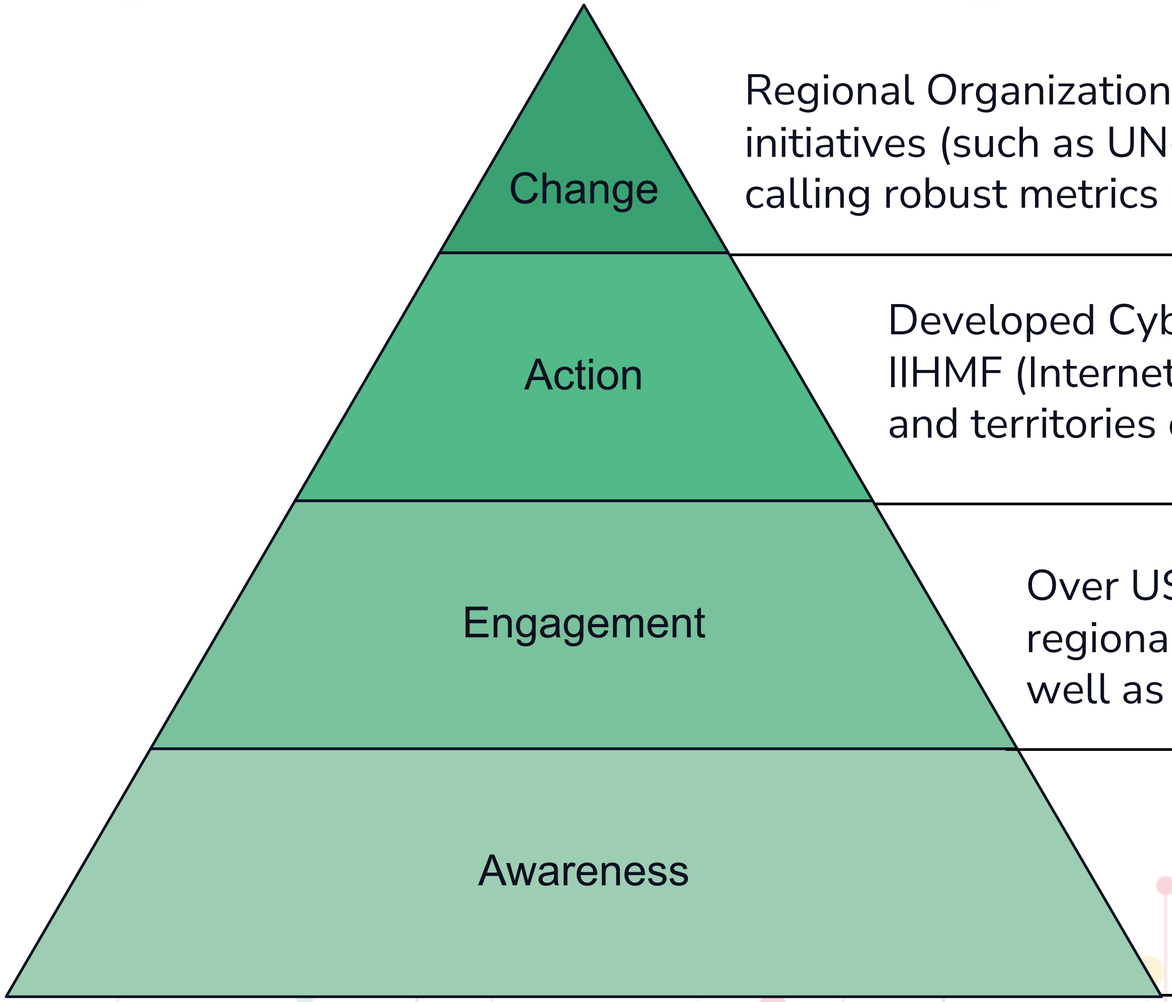
Pyramid of Change



Regional Organization(such as APNIC, ERIA, EC), Policy making and Norm initiatives (such as UN-GGE, Paris Call, US Whitehouse EO) are calling robust metrics and evidential data

Developed Cyber Public Health Model, and Metrics Framework. IIHMF (Internet Infra Metrics Framework) started scoring 250 countries and territories of Cyber Ecosystem Health from 2022

Over US$ 3M research funding by variety of government and regional institute progressive developing the model and metrics, as well as academic engagement with UW, and IU Ostrom WG.

A decade of narrative and perspective change reaching over variety of international conferences and foras, such as G20, UN OEWG, IGF, Regional intergovernmental foras, OECD, World Bank Group, GFCE, UNFINISHED and so on

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FOCUS ON THE DATA FOUNDATION

PROOF OF CONCEPT

CyberGreen is developing discrete “proof of concept” data collection and measurement projects like our IIHMF “Internet Infrastructure Health Metrics Framework.”

UNLOCK & DEFINE

Mobilize a global community of experts, business leaders, and policymakers to unlock other critical datasets, define and create new ones, and establish standards.

UNLEASH RESEARCHERS

Open data to researchers in industry, academia, NGOs, and government to begin testing theories and knowledge sharing.

Vital statistics in Cyber Public Health
https://cybergreen.net/technical-report-22-02/

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Join us the initiative to establish science of Cyber Public Health

- Review / validate Metrics Algorithms/methods send us comments and critiques for improvement.
- Define and unlock the cyber vital data, risk indicators
- Help design institutional design and mechanism for global scale
- Join the Cyber Public Health working group @UI, Ostrom Workshops https://ostromworkshop.indiana.edu/funding-proposals/working-groups/index.html
- Support the work, become research sponsor/partner

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