Security Awareness That Lasts

Russ Mumford
Visible Statement
QUESTION:
What are the three most important factors in security awareness?
Compliance doesn’t insure awareness.

Compliance is a one-size-fits-all, *point-in-time snapshot* that demonstrates you meet the minimum, security-related requirements of specific regulatory standards.

Security is the whole unique system of policies, processes, and technical controls that define how your organization stores, processes, consumes and distributes data so that it’s effectively and verifiably protected from cyber threats.
Education and Awareness...

...are different subjects.

EDUCATION...is information and instruction.

SECURITY AWARENESS...is the knowledge and attitude members of an organization possess regarding the protection of the physical, and especially informational, assets of that organization.
How do you get from this… To this?
Einstein Discovers that Time is Money.
The Art of Simplification

Carte Figurative des parties navigables en bassins de l'Europe, dans la campagne de Russie 1812 ~ 1813.

TABLEAU GRAPHIQUE de la température en degrés de la thermomètre de Wiesnau au dessus de zéro.

Napoleon’s March to Moscow: The War of 1812

This classic of Charles Joseph Minard (1785 ~ 1850), the French engineer, shows the terrible fate of Napoleon’s army in Russia. Depicted by E. J. Minard by means of the geography of its brutal expedition, this combination of data map and time-series graph, drawn in 1869, provides the devastating losses suffered in Napoleon’s Russian campaign of 1812. Beginning at the left on the Polish-Russian border near the Niemen River, the thick black line shows the size of the army (125,000 men) as it dwindled in June 1812. The width of the line indicates the size of the army at each point on the map. In September, the army reached Moscow, which was captured and destroyed, with 23,000 men. The path of Napoleon’s retreat from Moscow is depicted by the darker, lower band, which is linked to a temperature scale and dates at the bottom of the chart. It was a terribly cold winter, and many froze on the march out of Russia. As the graphic shows, the crossing of the Neman River was a disaster, and the army finally struggled back into Poland with only 10,000 men remaining. Also shown are the movements of auxiliary troops, as they fought to protect the rear and the flanks of the advancing army. Minard’s graph, with its rich, colorful story and its multivariate data, is more enlightening than just a single number changing along over time. So variables are plotted: the size of the army, its location on a two-dimensional surface, direction of the army’s movement, and temperature on various dates during the retreat from Moscow. It may well be the best statistical graphics ever drawn.
The Ebbinghaus Forgetting Curve

...was originally published in 1885.
The Human Component of Security

“Cybersecurity experts, including the FBI and cyber-security professionals from around the world, confirm the biggest weakness in cybersecurity is human error. In fact, IBM revealed in its latest Cyber Security Intelligence Index that an astonishing 95 percent of all security incidents involve human error – from following links to phishing scams to visiting bad websites, enabling viruses and falling victim to other advanced persistent threats.”

Huffington Post, 05/10/2017
The Definition of Low-Hanging Fruit

“The obvious or easy things that can be most readily done or dealt with in achieving success or making progress toward an objective.”
Retention increases to **90%**...

...with several spaced repetitions
Again...

What are the three most important factors in security awareness?
ANSWER:

REPETITION

REPETITION

REPETITION
Ways to Insure Repetition

- Computer Generated Reminders
- E-mail
- Text Messages
- Logon Messages
- Web Site
- Newsletters
- Training Exercises
- Newsletters
- Posters
Visible Statement

Security Remembered. Awareness Delivered.

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