WOLF HACK ACADEMY
CAPACITACIÓN SIN FRONTERAS

Tendencias Organizacionales
Wolf Hack Impact Online 2024

Protegiendo el Motor Empresarial La Importancia de la Ciberseguridad

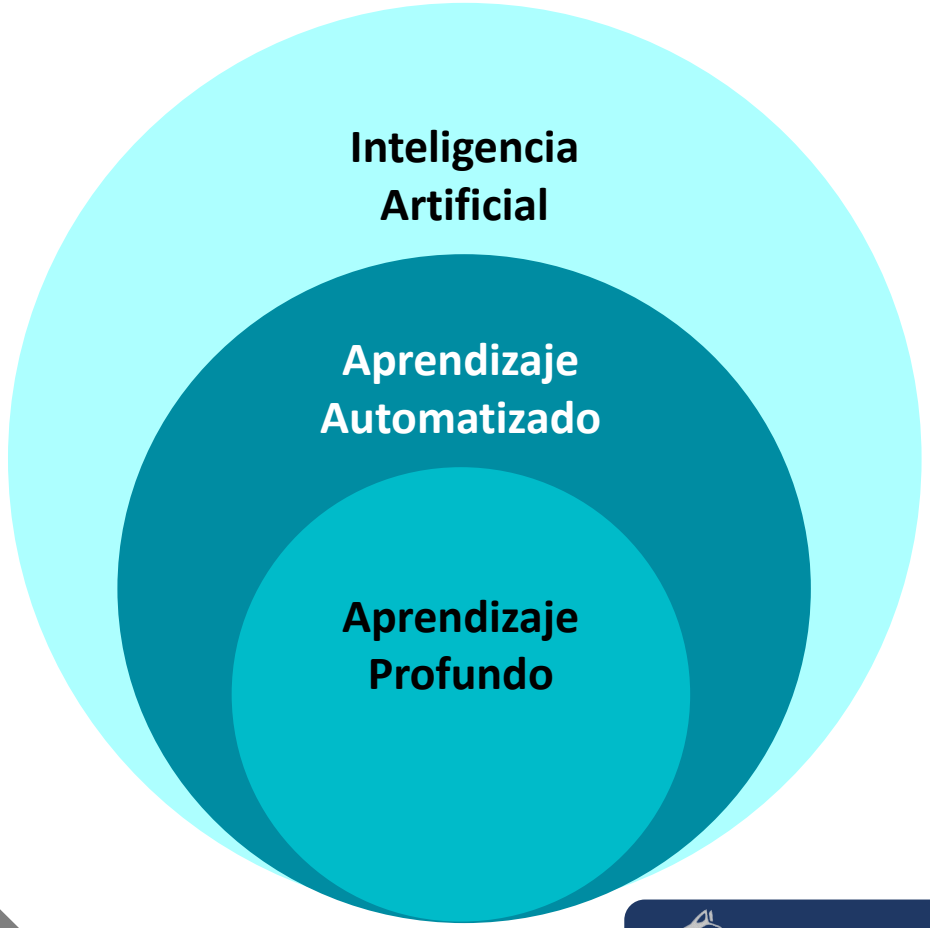
Exponente:

Fátima Rodríguez Giles
Cybersecurity Intelligence Analyst

Desde una perspectiva ofensiva, el adversario quiere acortar y oscurecer la kill-chain siendo lo más eficiente y encubierto posible.

Un adversario con capacidad de IA puede utilizarla para automatizar sus tareas, mejorar sus herramientas y evadir la detección.

IA/ML/DL

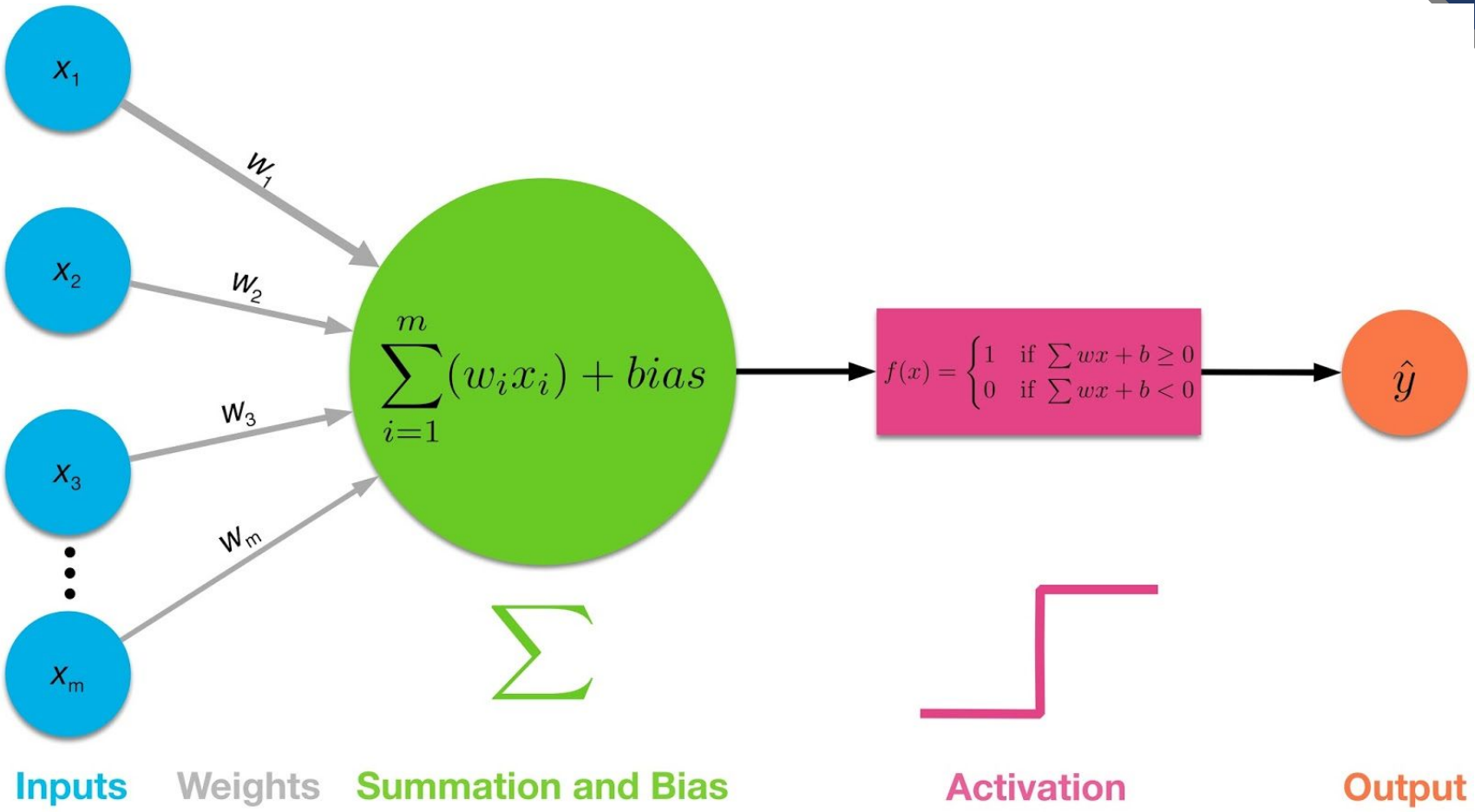


Incorporar comportamiento humano inteligente

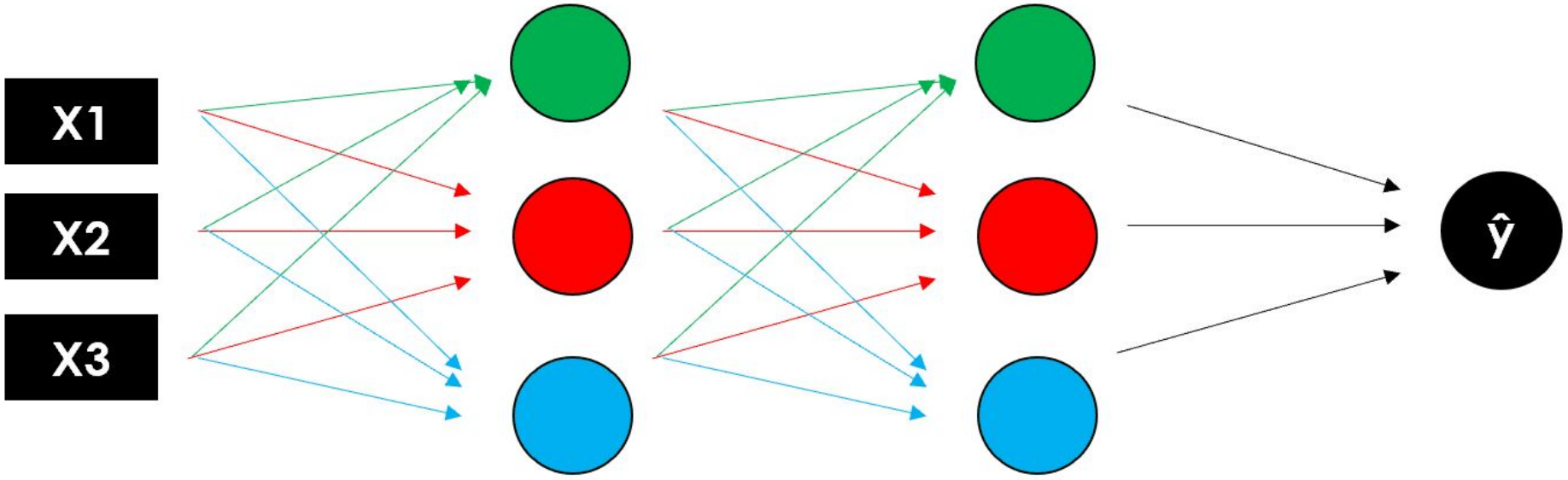
Aprende y mejora automáticamente de la experiencia*

Utiliza algoritmos complejos y redes neuronales para entrenar un modelo.

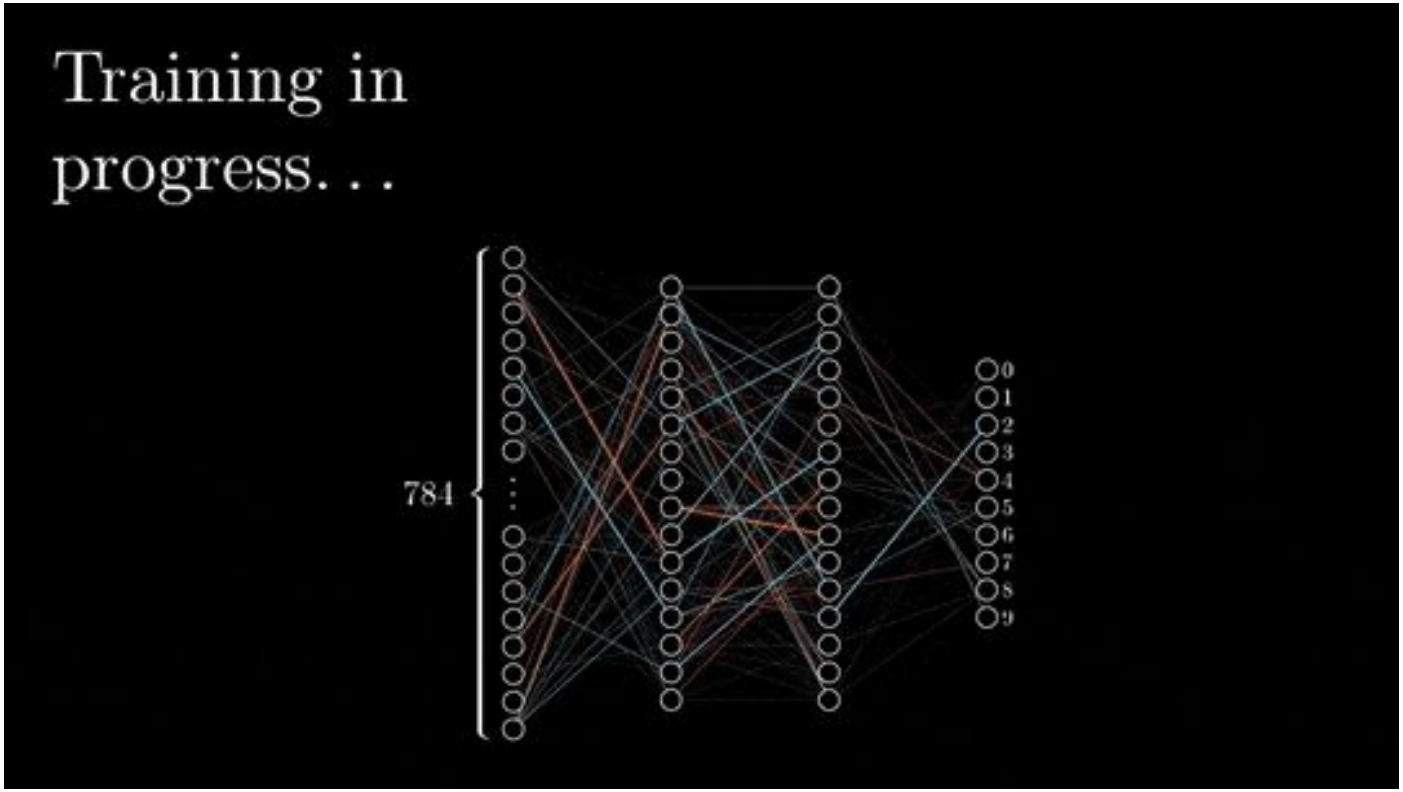
IA/ML/DL


x_1
x_2
x_3
x_m
w_1
w_2
w_3
w_m
$\sum_{i=1}^{m}(w_i x_i) + bias$
$f(x) = \begin{cases} 1 & \text{if } \sum wx + b \geq 0 \\ 0 & \text{if } \sum wx + b < 0 \end{cases}$
$\hat{y}$
$\sum$
Inputs
Weights
Summation and Bias
Activation
Output

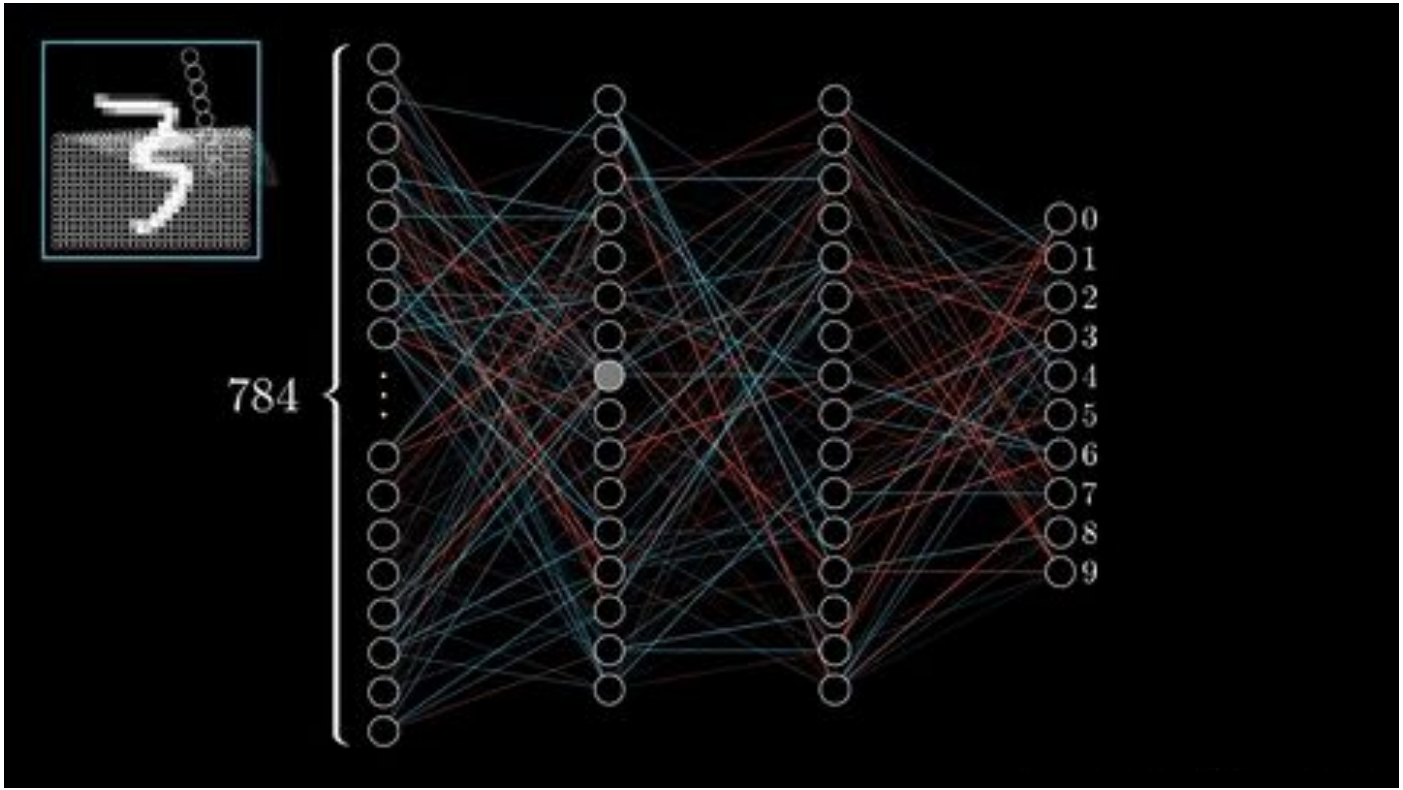
IA/ML/DL



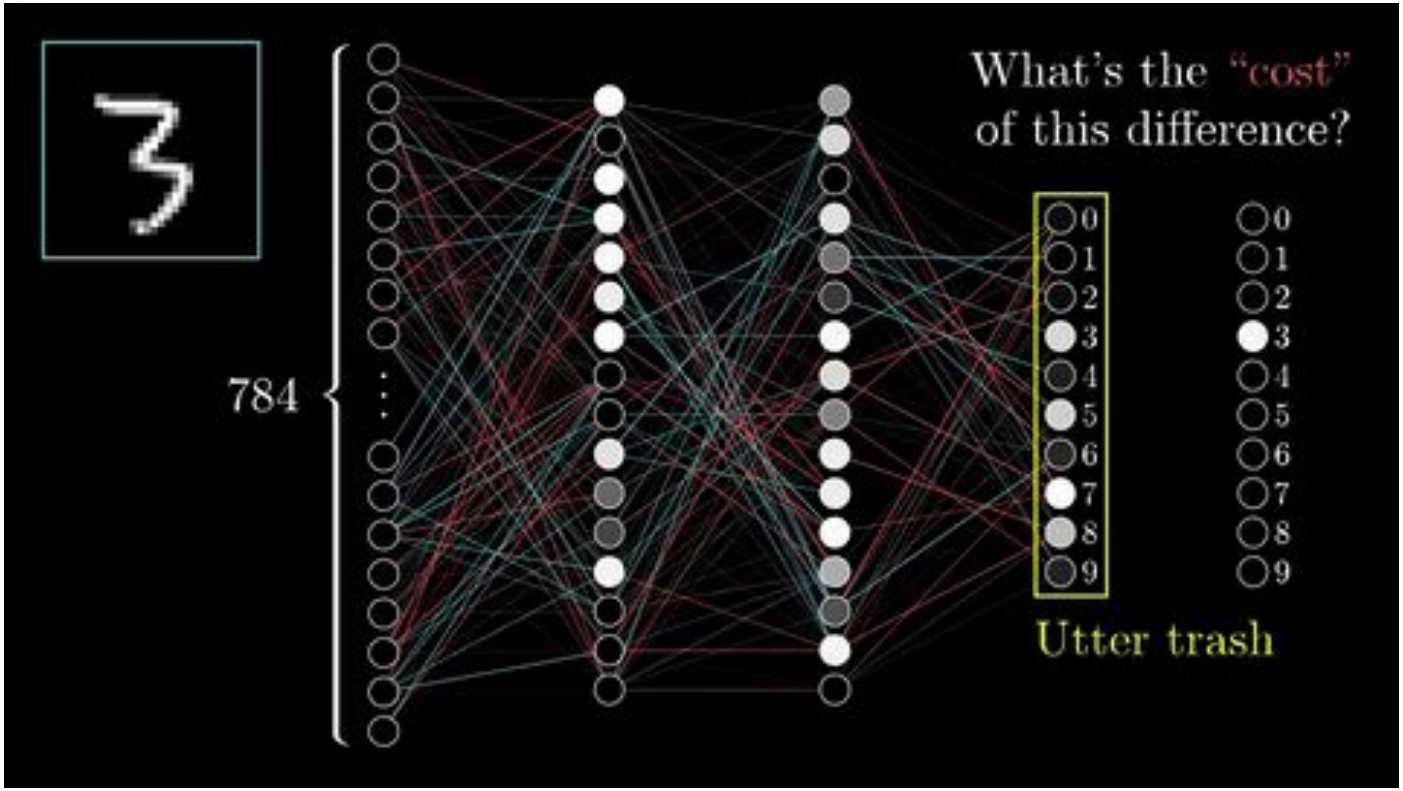
Redes Neuronales Recurrentes



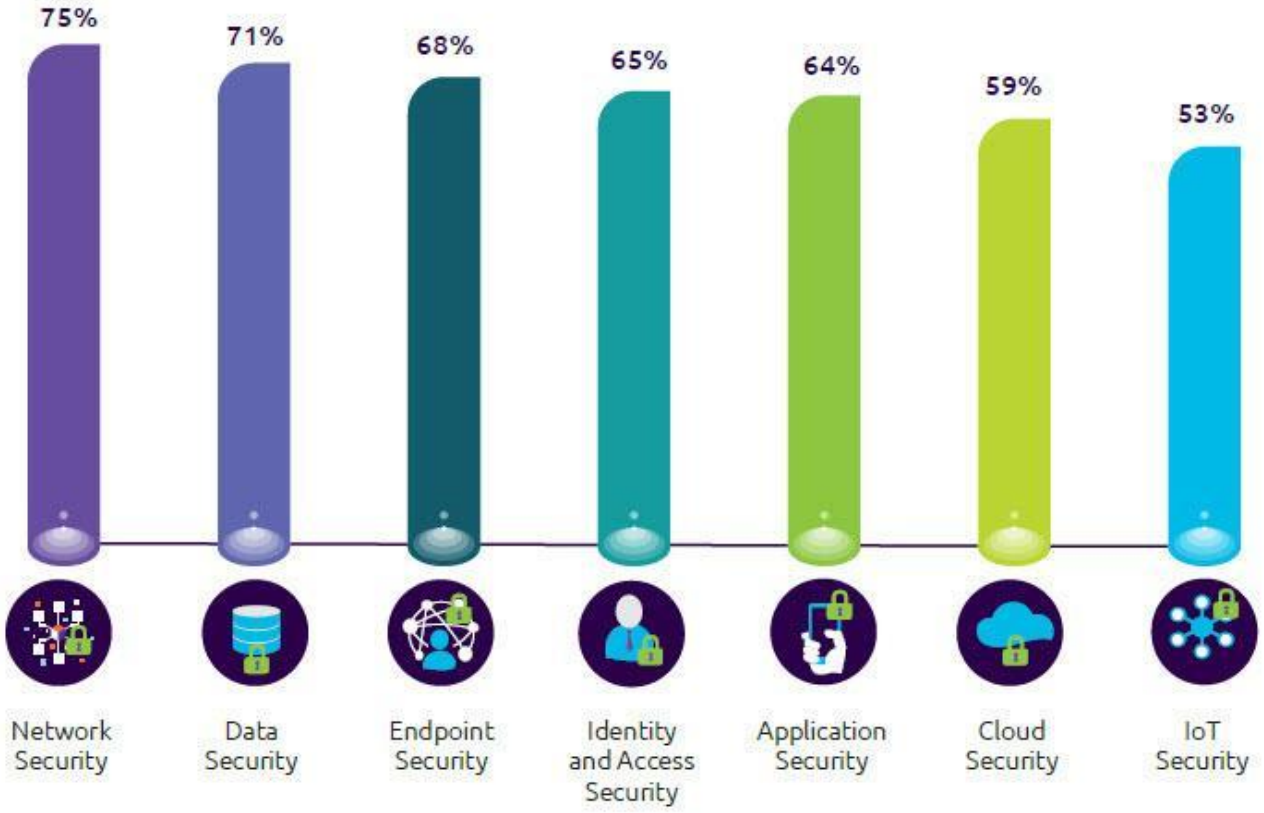
Redes Neuronales Recurrentes



Redes Neuronales Recurrentes



Capacidad IA Defensiva



Source: Capgemini Research Institute, AI in Cybersecurity executive survey, N = 850 executives

RRNs en Seguridad Ofensiva

Podemos generalizar las tareas donde la IA Ofensiva es más común en las siguientes:

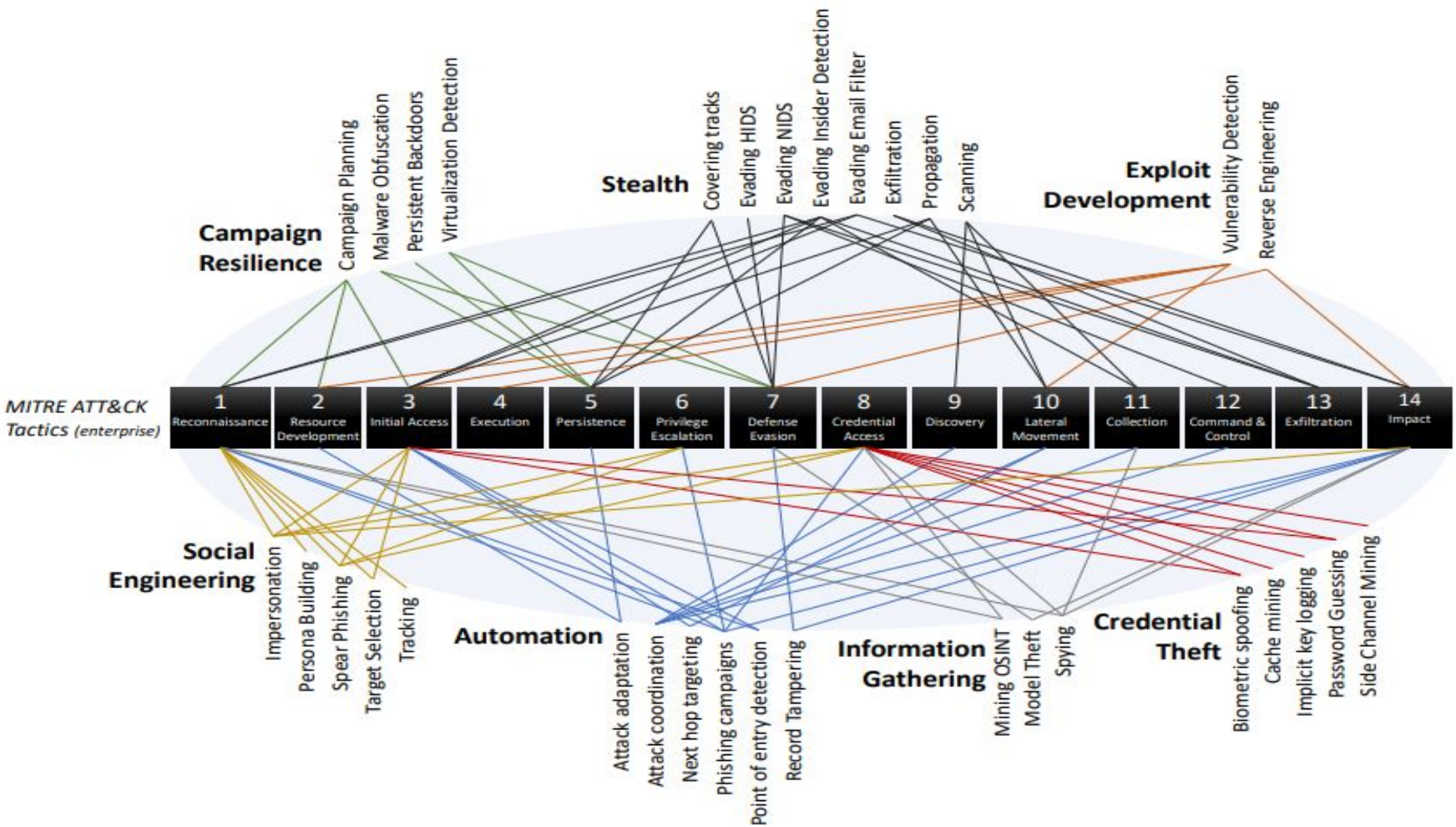
- PREDICCION
- GENERACIÓN
- ANÁLISIS
- DEVOLUCIÓN
- TOMA DE DECISIONES

RRNs en Seguridad Ofensiva

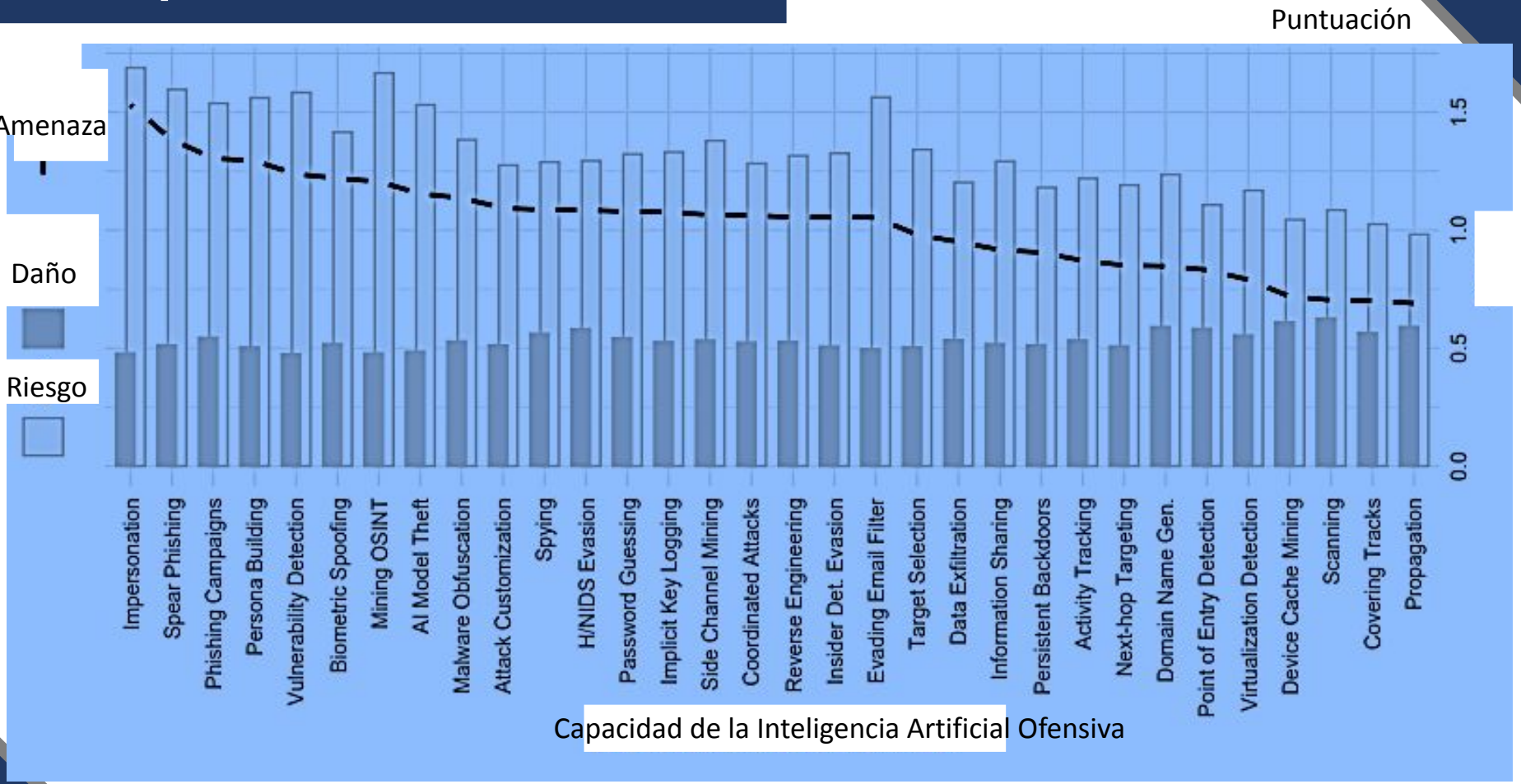
Podemos generalizar las tareas donde se ataca a la IA con las siguientes:

- ANÁLISIS DE LAS RESPUESTAS
- PARÁMETROS DEL MODELO
- CÓDIGO DE ENTRENAMIENTO
- MODIFICACION DATOS

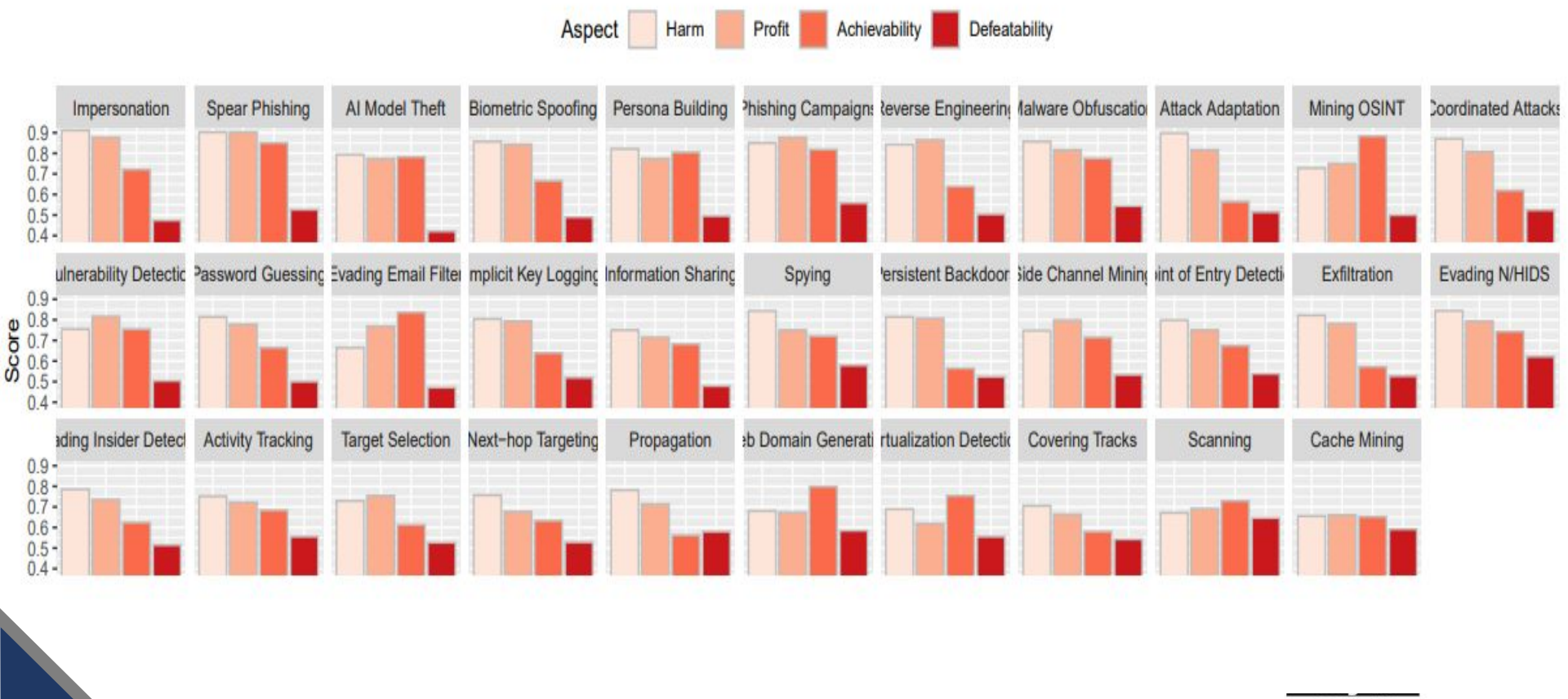
Capacidad IA Ofensiva



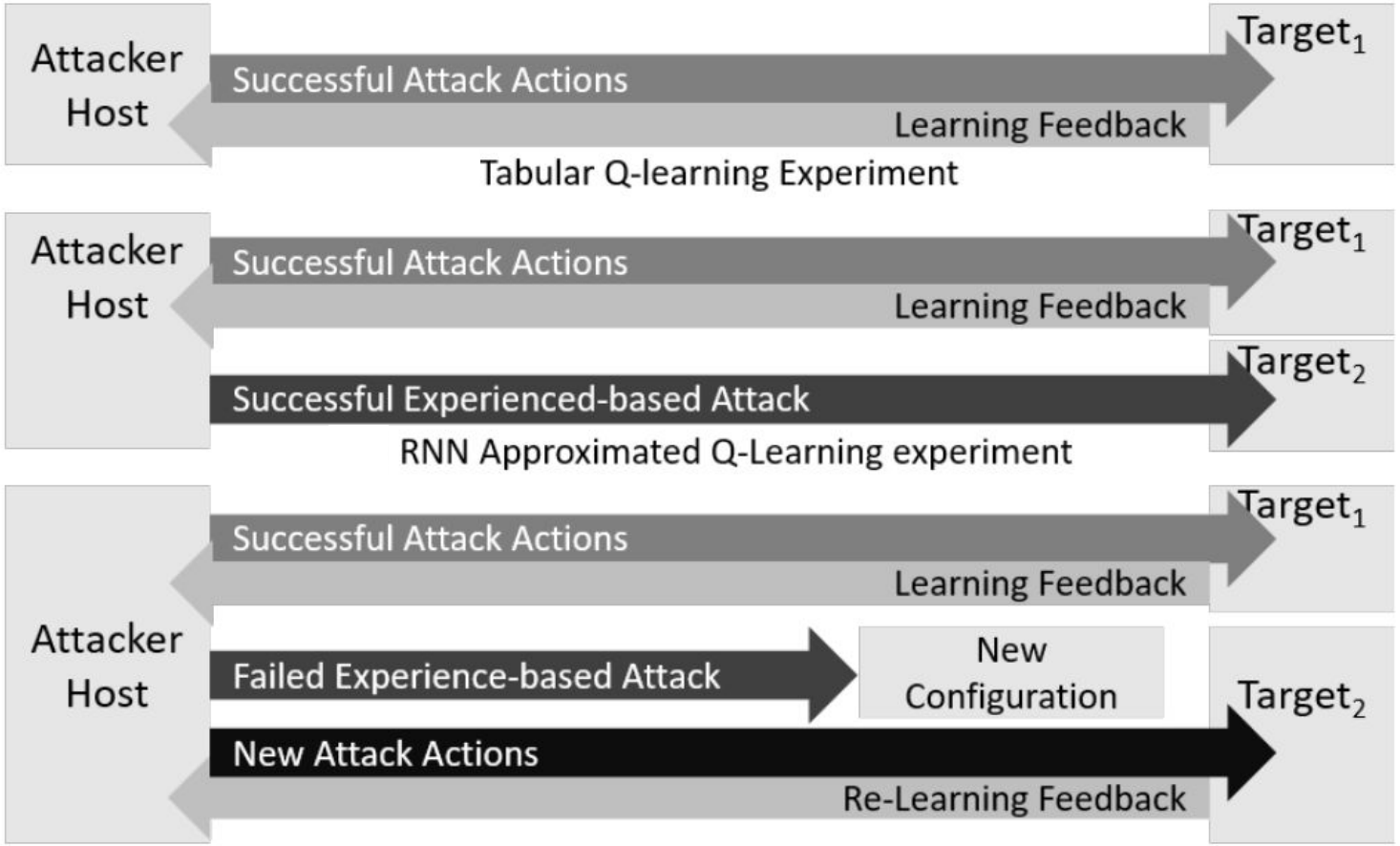
Capacidad IA Ofensiva



Password Guessing



Exploiting Generation

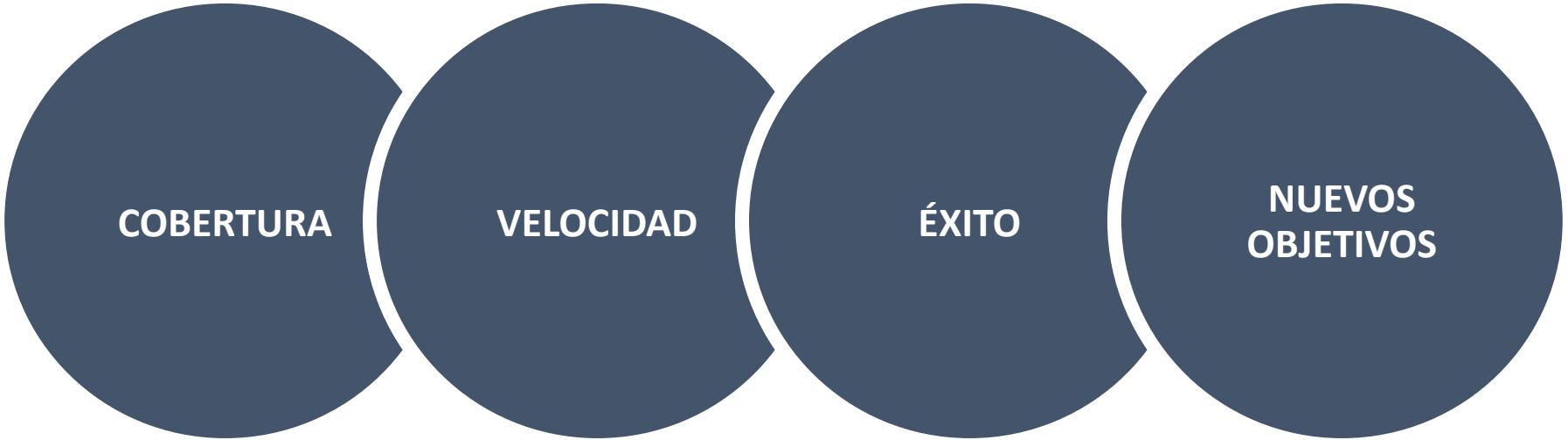


Offensive

Generación de Contraseñas

bdb[7c7]	ihardin@mainterve.com	APT2898	nnpN@p?y#j	113.89.216.98	73.41.b7.d0.0f.13	14:47
VE1[14S]	cacevedo@populatin.com	Youredgeld175	f>?AL?nhzKH	89.216.98.246	53.c8.b4.63.6a.43	13:40
0Le[V3a]	jgalas@opprent.com	MiniDuke89	<s,%gffota	216.98.246.95	d6.a8.0b.42.0c.40	19:40
X3t[TPj]	odaugherty@barberties.com	Renetsha165	i%WIY2b!?YRo	98.246.95.122	62.4d.3b.83.ee.ca	14:05
dgT[oC9]*	kclarke@distrala.com*	Fancy Bear79*	qbDxih.*	121.124.109.233*	75.33.c2.ae.8e.d2*	15:12*
e4D[I0P]	fdesir@dational.com	5H13LD40	rF<?/,LXf>	124.109.233.144	76.04.0c.42.31.da	15:21
a3W[2Dr]	wholland@mainterve.com	APT2898	mgE<&#)v<	109.233.144.222	62.a2.aa.3b.34.d2	14:38
4Hb[mzt]	amoren@affortre.com	ngOblin52	?o[WKD?	233.144.222.132	ee.48.0e.fd.d7.78	20:28
iDS[J24]	gkerry@incretics.net	Reasiami137	yb;LmRt	144.222.132.234	9c.a5.b3.b0.91.fc	16:16
2ts[P2a]	mchappelle@novgoro.com	Powershell backdoor70	;#:BORKi	222.132.234.229	d0.52.bd.c7.fb.da	19:57
gTo[C9i]	akaiser@austice.com	BleakDjLyfe149	u6?dmvr%r??	132.234.229.32	83.d3.c5.6b.e2.15	15:41
4DI[0P4]	dedler@undeter.com	Fujitet186	?MW(s?f,	234.229.32.14	ee.9f.e2.a7.2e.41	20:31
3W2[Dr0]	nedelmann@captistian.net	Iscicarg128	,:@s98*,	229.32.14.186	ef.3b.4e.0b.7c.2d	20:17
Hbm[ztP]	ogalan@excrucial.net	SchoolDari168	L4%>#,Fz	32.14.186.79	1d.0d.13.96.3e.d6	10:59
DSJ[24I]	clee@bearine.com	TinChiquita143	FO?;ru?W?	14.186.79.15	07.11.e5.56.8e.13	10:10
tsP[2aA]	scantrell@forminist.com	Readissynd136	$Wllskx&	186.79.15.91	b2.81.65.b2.00.0c	18:15
ToC[9iU]	ccharland@recyclogs.com	Bazooobin121	bDxih.wn	79.15.91.115	45.79.1d.fe.6f.4f	13:13
DI0[P4w]	fdesir@writtee.org	scidea115	F<?/,LXf>?AL	15.91.115.78	04.36.d1.b5.ba.7b	10:11
W2D[r0e]	cberry@saxonomina.com	Illumin4ty105	gE<&#)	91.115.78.184	56.df.31.ee.dd.3e	13:46
bmz[tP1]	mewing@advantion.com	PinchDuke90	o[WKD?Yi%	115.78.184.166	7a.59.29.74.7b.ad	14:53
SJ2[4Il]	ccannon@excrucial.net	SchoolDari168	b;LmRts?	78.184.166.36	4e.77.a0.32.95.77	13:09
sP2[aAZ]	hdunlap@madonnaged.net	SEDKIT96	#:BORKih	184.166.36.225	bf.f6.c5.94.92.8c	18:09
oC9[iUY]	amoren@nus.edu.sg	Tank14	6?dmvr%r??I	166.36.225.159	a3.dd.6c.3f.aa.7e	17:18
I0P[4w5]	sbrown@drillful.com	Commentlyst122	MW(s?f,G	36.225.159.41	2f.af.bc.24.1b.df	11:10

Impacto Potencial



Entender la motivación

- **¿Cuáles son los posibles impactos sociales de los ciberataques impulsados por la IA?**
- **¿Qué marco se puede utilizar para comprender los ciberataques impulsados por la IA?**
- **¿Qué estrategias y técnicas se pueden utilizar para mitigar los ciberataques impulsados por la IA?**

Preguntas