

CE876 - Information Security Mng. & Eng.

Lecture 10: Introduction to Cybersecurity Governance

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Acknowledgments: Some of the slides are fully or partially obtained from other sources. A reference is noted on the bottom of each slide to acknowledge the full slide or partial slide content.

Internet, smart or dumb?

- “Smart” networks offer sophisticated services that can be delivered to very simple end-user devices on the “edge” of the network.
- Other networks are “dumb” — they offer only a very basic service and require that the end-user devices are intelligent.
- Centralized innovation means slow innovation. It also means innovation directed by the goals of a single company. As a result, anything that doesn’t seem to fit the vision of the company that owns the network is rejected or even actively fought.
- Surprisingly, then, “dumb” networks are the smart choice for innovation and freedom.

Permission less model

- The Internet is a dumb network, which is its defining and most valuable feature.
 - The Internet's protocol (transmission control protocol/Internet protocol, or TCP/IP) doesn't offer "services." TCP/IP acts as an efficient pipeline
 - It doesn't make decisions about content.
 - It doesn't distinguish between photos and text, video and audio.
 - It doesn't have a list of approved applications.
 - It doesn't even distinguish between client and server, user and host, or individual versus corporation.
 - Every IP address is an equal peer.
- So the dumb network becomes a platform for independent innovation, without permission, at the edge.
- Simultaneously this permission less design certainly affects the security.

Ownership challenge

- Complicated legal “edge cases” around ownership of (e.g. IP addresses) are minor exceptions.
- What risks are mitigated, accepted or externalized is driven first and foremost by the incentives of the owner.
 - So institutional mechanisms might constrain or otherwise shape these incentives.
- One could basically call this a property rights approach to security governance.
 - Ownership is a conceptually straightforward starting point for thinking about governance.
- So why governance is so complicated, or in some ways, absent:
 - Because ownership is extremely distributed across an interdependent global ecosystem of resources, systems, and services.

Ownership challenge

- Complicated legal “edge cases” around ownership of (e.g. IP addresses) are minor exceptions.

A common belief:

Internet is a “global digital commons” or “public good”.

The fact:

Nearly every resource, system or service is someone’s private property.

- So why governance is so complicated, or in some ways, absent:
 - Because ownership is extremely distributed across an interdependent global ecosystem of resources, systems, and services.

[Patching security governance: an empirical view of emergent governance mechanisms for cybersecurity. Van Eeten, M., Digital Policy, Regulation and Governance, 2017]

Shifting property rights

from users to internet intermediaries

Schneier has observed that two recent developments are impacting the authority of owners of nodes:

- The rise of cloud computing.
- More of our data and computing takes place on the networks of others, rather than on our own node.
- Obvious examples are Gmail, Salesforce, Amazon elastic cloud compute, Facebook, Uber, Spotify, Office 365, Dropbox, etc.
- Vendor-controlled platforms.
- More and more of our devices are closed down, or at least less open than general-purpose computers, and controlled by vendors.
- Vendors limit what users can do with their devices, i.e. What code they can run.



Feudal security

- Now that the IT industry has matured, we expect more security “out of the box.”
- We cede control of our data and computing platforms to these companies and trust that they will treat us well and protect us from harm.
 - We become their vassals; or, on a bad day, their serfs.
- Feudal security also has its risks. Vendors can act arbitrarily, against our interests.
- The feudal relationship is inherently based on power.
- In Medieval Europe, people would pledge their allegiance to a feudal lord in exchange for that lord’s protection. This arrangement changed as the lords realized that they had all the power and could do whatever they wanted. Vassals were used and abused; peasants were tied to their land and became serfs.

Feudal security 2

- How do we survive?
- Increasingly, we have little alternative but to trust someone, so we need to decide who we trust — and who we don't — and then act accordingly.
- On the policy side, we have an action plan.
 - In the short term, we need to keep circumvention — the ability to modify our hardware, software, and data files — legal and preserve net neutrality.
 - In the longer term, we all need to work to reduce the power imbalance. Medieval feudalism evolved into a more balanced relationship in which lords had responsibilities as well as rights.
- Regulations or games to change the scene.

Limitations on property rights of owners

- Another trend is the growing number of regulatory constraints on the property rights of device owners.
- This is mainly happening in sectors that were already strongly institutionalized and regulated, such as health, energy, financial services, and transportation.
- Slowly but surely, though, security standards are being recommended or mandated in these sectors.
- Many of these standards are process-based (“adopt adequate safeguards”), rather than mandating specific technical security measures.

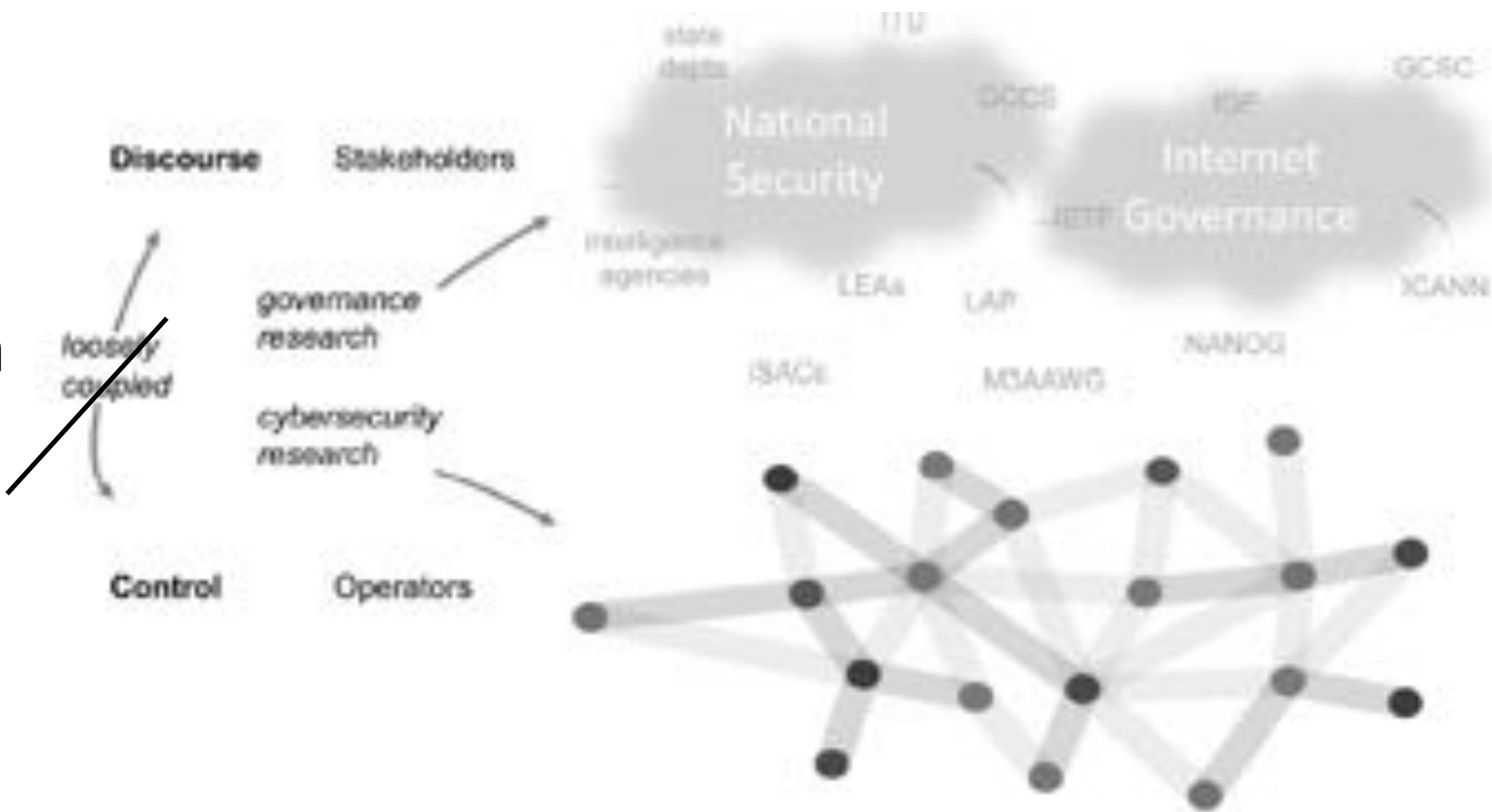
Limitations on property rights of vendors

- The last shift in security governance to highlight here is changes in the property rights of vendors.
- Conventionally, software and hardware vendors put their products into the market without requirements in terms of how they were secured.
- Users, whether corporate or consumer, have to accept End User License Agreements (EULAs) to be able to use the product.
- This is not without benefits in terms of innovation (“go fast and break things”), but the downside is that time-to-market and other economic incentives have often trumped security.
- Some cases for such trend are:
 - Dutch consumer union (Consumentenbond) took Samsung to court for failing to release security patches for even recent phones.
 - Another case, Samsung rolled out a software update that prevented the phones not returned in the “Note 7 recall” from charging, rendering it completely unusable.

[Patching security governance: an empirical view of emergent governance mechanisms for cybersecurity. Van Eeten, M., Digital Policy, Regulation and Governance, 2017]

Multiple players

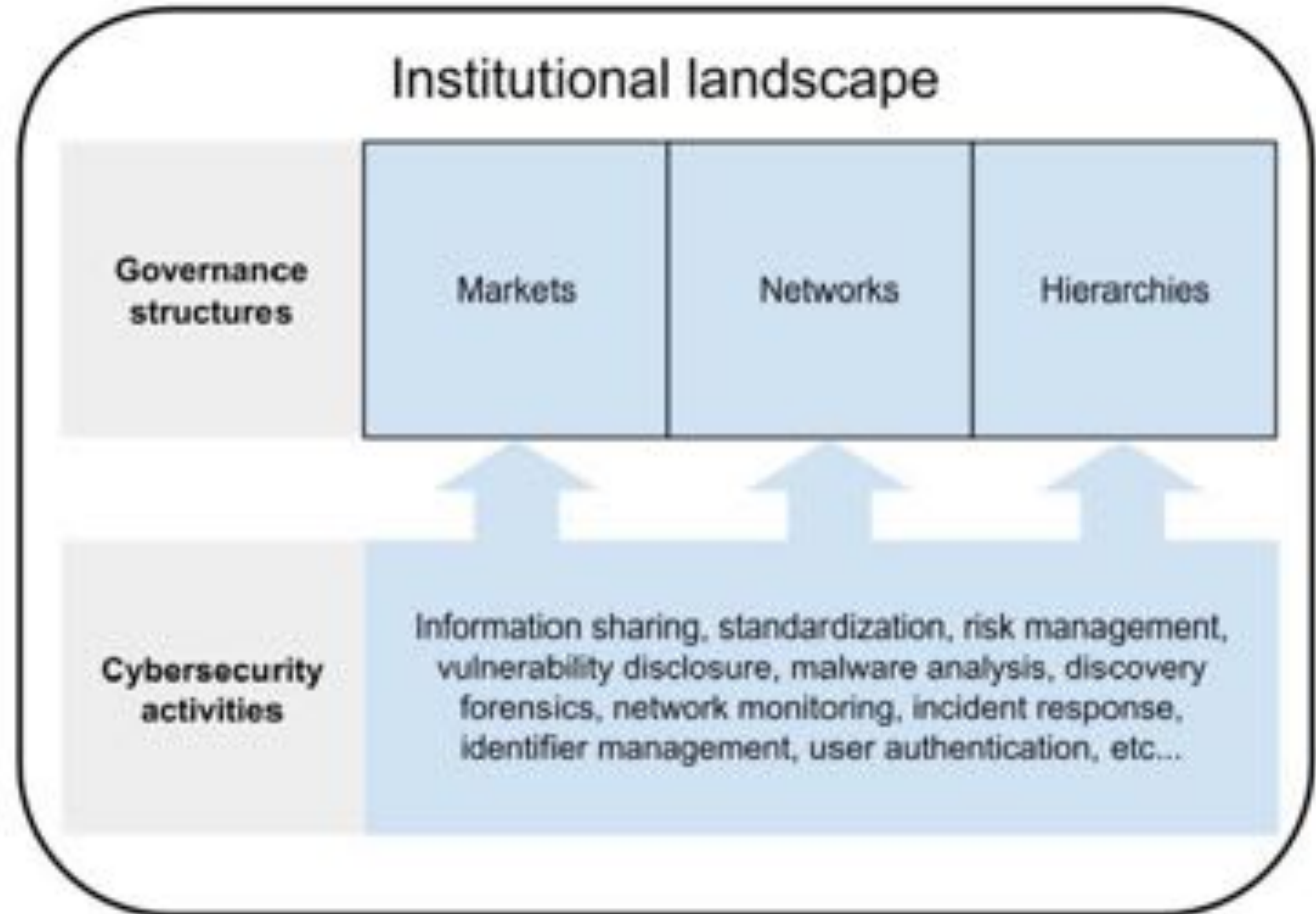
- There isn't a complete coupling between governance institutions and operation at resources connected to the internet.
 - ICANN and OpenDNS
 - IETF and ignored RFCs
- Governance research is heavily focused on the top of the figure, cybersecurity research on the bottom.
- The discourse and control are only loosely coupled reflects fact a particular political economy, where many states have not imposed wide-ranging hierarchical control.
- This particular arrangement is contingent and might change over time.



[Patching security governance: an empirical view of emergent governance mechanisms for cybersecurity. Van Eeten, M., Digital Policy, Regulation and Governance, 2017]

A general overview to cyber security governance

- We will talk more on these structures in the following lectures.



بناام خدا

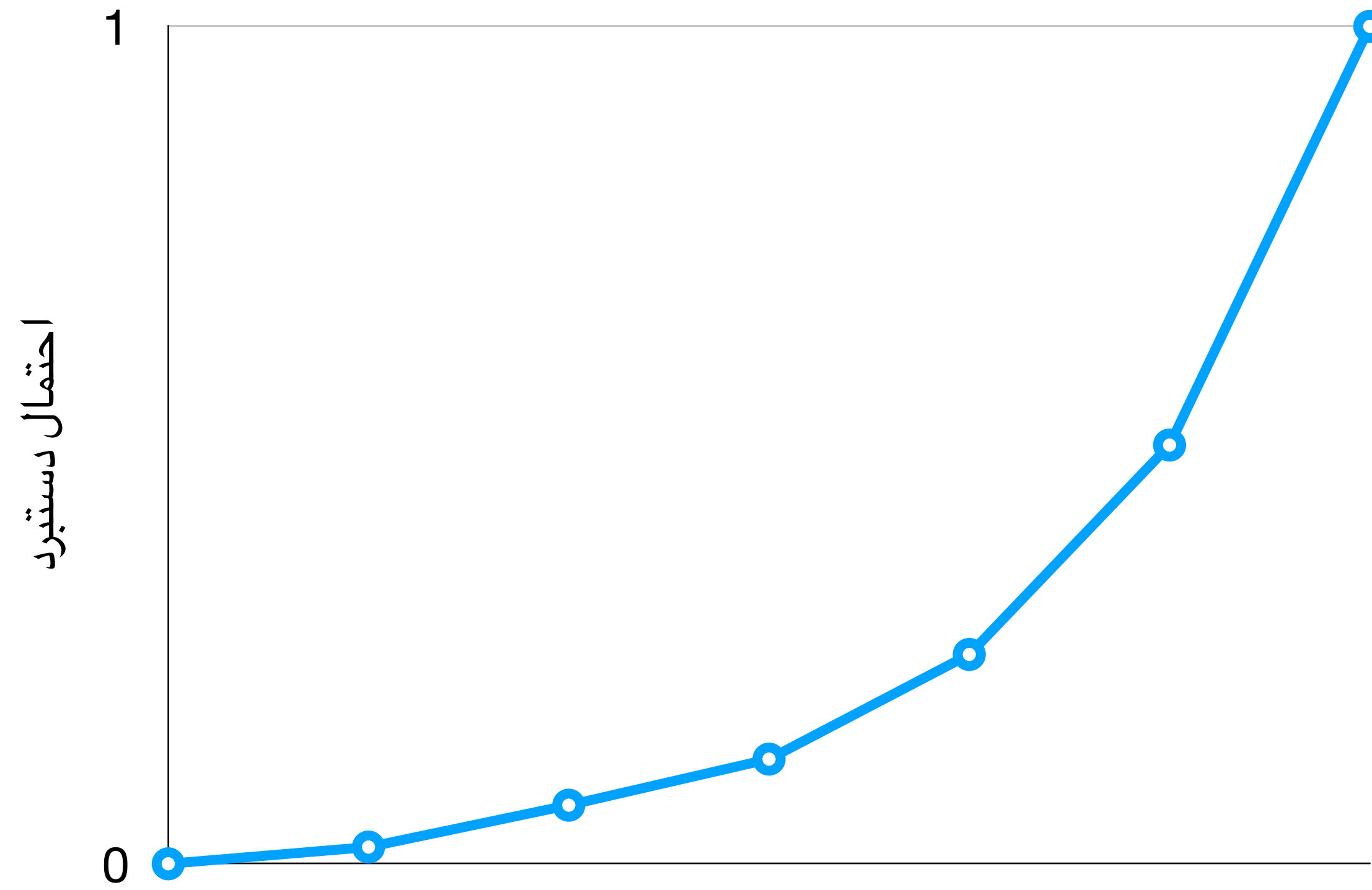
اقتصاد در امنيت فضاي مجازي

آزمایشگاه ایمنی و امنیت نرم افزار و سیستم ها (S4 Lab)
دانشگاه صنعتی شریف



نگاه از سمت سارق

هزینه دستبرد: نقل و انتقال، دستمزد همکاران، ریسک دستگیری، وکیل و غیره



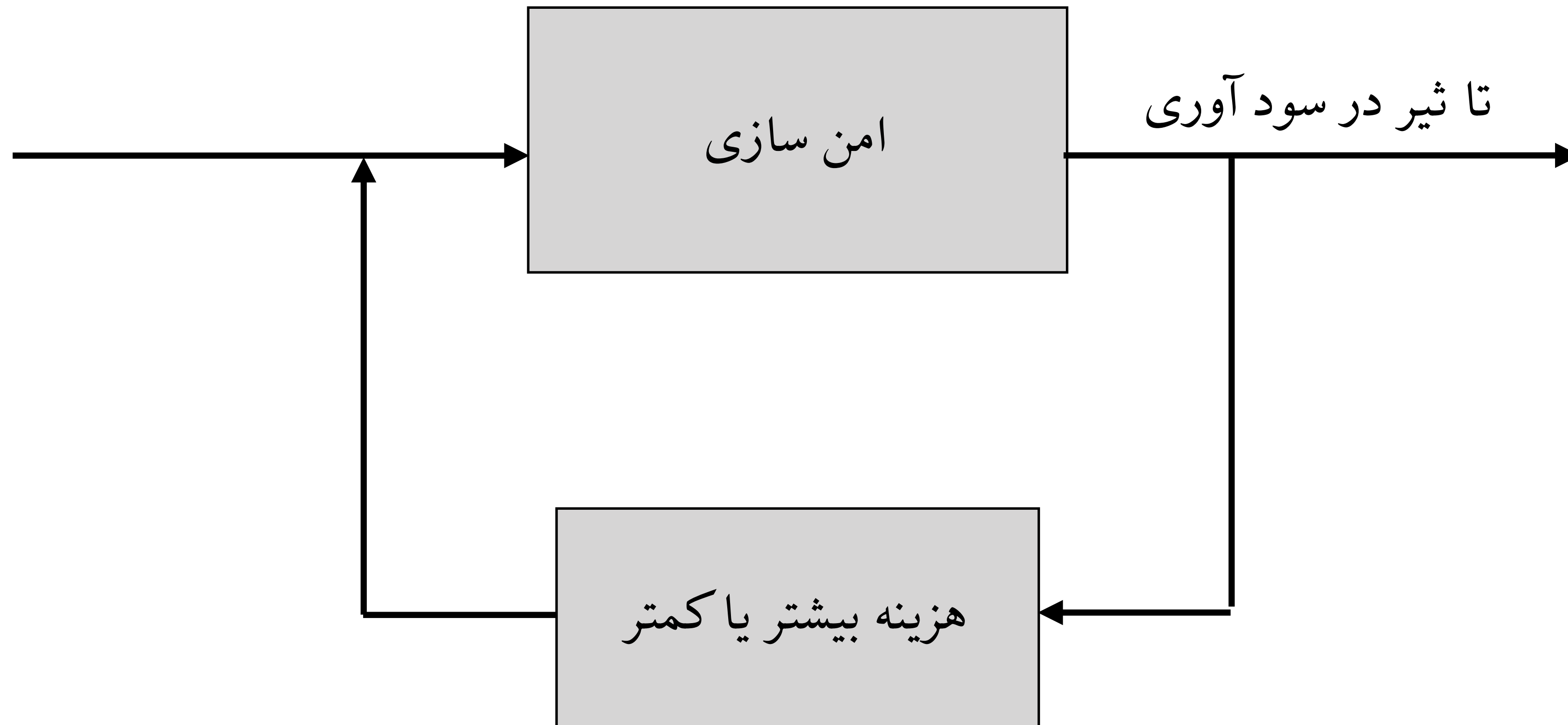
سود = ارزش اسکناس های خود پرداز - هزینه دستبرد

نگاه از سمت بانک

هزینه دستبرد: ارزش اسکناس ها، ارزش خودپرداز، وجهه تبلیغاتی، وکیل و غیره

هزینه امن سازی \geq هزینه دستبرد \times احتمال دستبرد

امنیت یک امر اقتصادی است





هزینه کرد برای آنتی ویروس \geq هزینه آلودگی \times احتمال آلودگی



هزینه برای رفتار عجیب \geq هزینه برداشت غیر مجاز \times احتمال آن



*این مدارک هویتی بصورت عمومی در اینترنت در دسترس بوده است و بخش‌های حساس آن جهت حفظ حریم خصوصی کاربران پوشیده شده است.

هزینه مراقبت فیزیکی از شناسنامه \geq هزینه گم شدن شناسنامه \times احتمال آن

هزینه مراقبت از اطلاعات شناسنامه \geq هزینه به اشتراک گذاری اطلاعات شناسنامه \times احتمال سوء استفاده از آن

Year	Asia				
	Total	Turkey in Asia ¹	China	Japan ²	Other Asia ³
	101	102	103	104	105
1885	198		22	49	127
1884	510		279	20	211
1883	8,113		8,031	27	55
1882	39,629		39,579	5	45
1881	11,982	5	11,890	11	76
1860	5,476		5,467		9
1859	3,461		3,457		4
1858	5,133		5,128		5
1857	5,945		5,944		1
1856	4,747		4,733		14
1855	3,540		3,526		14
1854	13,100		13,100		
1853	47		42		5
1852	4				4
1851	2				2
1850	7		3		4
1849	11		3		8
1848	8				8
1847	12		4		8
1846	11		7		4
1825	1		1		
1824	1				1
1823					
1822	1				1
1821					
1820	5		1		4

Series C 115-132. Immigrants, by Major Occupation Group: 1820 to 1957—Con.

Year	Total ¹	No occupation	Professional	Commercial	Skilled	Farmers	Servants	Laborers	Miscel- laneous
	118	125	126	127	128	129	130	131	132
1898	229,299	90,569	1,547	5,908	33,145	16,243	23,656	52,531	5,849
1897	230,832	91,624	1,732	7,159	33,161	22,560	23,739	46,198	4,659
1896	343,267	123,196	2,324	6,174	46,807	29,251	38,926	91,262	5,327
1895	258,536	92,193	2,029	5,314	43,844	13,055	35,969	61,439	4,711
1894	285,631	113,247	1,791	6,033	49,736	21,762	29,653	56,732	6,677
1893	439,730	209,767	2,362	837	51,145	34,070	(?)	114,295	*27,254
1892	579,683	255,832	2,932	2,683	63,128	51,639	(?)	171,483	*31,975
1891	560,319	248,635	3,431	11,349	54,951	36,398	32,596	167,299	5,678
1890	455,302	195,770	3,236	7,802	44,540	29,296	28,625	139,365	6,668
1889	444,427	208,761	2,815	7,359	50,457	28,962	30,220	111,809	4,944
1888	546,889	243,909	3,360	7,597	59,985	29,335	27,810	170,273	5,129
1887	490,109	224,073	2,882	8,032	52,403	30,932	27,510	140,938	3,339
1886	334,203	157,952	2,078	6,237	36,522	29,600	29,198	86,833	3,763
1885	395,346	211,739	2,697	6,707	39,817	27,585	29,213	83,068	4,129
1884	518,592	277,952	2,284	7,691	55,961	42,050	24,249	106,478	3,727
1883	603,322	322,318	2,430	8,289	62,505	39,948	27,968	136,071	4,662
1882	788,992	402,835	2,992	19,192	72,464	61,888	23,610	209,605	5,896
1881	669,431	355,679	2,812	9,371	66,457	58,028	19,342	147,816	9,935
1880	315,334	188,931	918	6,400	26,369	42,873	3,203	46,649	.....
1879	299,683	157,657	972	3,508	32,921	29,675	3,671	62,179	.....
1878	229,483	118,508	517	3,497	24,765	31,670	4,433	46,223	.....
1877	239,482	126,005	703	4,218	25,895	43,594	3,198	35,869	.....
1876	158,649	91,132	592	4,189	13,230	27,944	3,349	18,193	.....
1875	119,896	65,055	542	5,049	10,857	19,349	2,492	16,552	.....
1874	84,764	49,843	755	3,960	9,476	9,831	1,174	9,725	.....
1873	56,529	32,842	578	3,226	6,993	8,031	413	5,346	.....
1872	110,980	60,526	744	4,976	14,563	12,966	1,264	13,951	.....
1871	87,805	46,197	541	5,267	11,111	12,343	923	11,423	.....
1870	92,297	47,305	481	5,311	10,811	18,476	183	9,649	.....
1869	74,666	37,985	564	5,692	10,026	12,419	99	7,879	.....
1868	45,159	24,627	459	4,005	5,675	6,467	42	3,684	.....
1867	84,959	52,011	522	3,893	8,483	10,835	120	9,095	.....
1866	80,972	50,684	472	3,379	8,879	8,770	39	8,749	.....
1865	48,716	28,736	487	3,875	6,905	6,117	599	2,897	.....
1864	67,948	45,906	561	3,021	7,199	7,560	1,236	2,874	.....
1863	59,925	39,944	459	4,913	12,800	6,518	82	4,109	.....
1862	61,654	33,840	176	5,424	10,333	8,502	56	3,323	.....
1861	23,880	15,218	189	2,368	2,383	2,685	115	928	.....
1860	24,837	19,363	136	1,427	1,745	1,424	22	729	.....
1859	24,513	15,535	232	2,661	2,579	1,264	337	1,885	.....
1858	30,184	18,066	331	2,328	3,868	2,542	421	2,628	.....
1857	21,777	12,415	282	2,076	3,058	2,071	136	1,761	.....
1856	13,906	7,478	190	1,943	2,129	1,382	70	716	.....
1855	12,858	7,031	204	1,841	1,416	1,647	69	650	.....
1854	9,627	4,965	187	1,906	1,237	918	13	361	.....
1853	8,265	4,247	179	1,427	1,268	800	6	338	.....
1852	8,549	4,362	151	1,431	1,397	834	20	414	.....
1851	11,644	6,679	204	1,441	1,633	1,249	94	453	.....
1850	10,311	6,836	165	933	1,090	874	139	334	.....

Series H 327-338. Institutions of Higher Education—Degrees Conferred, by Sex: 1870 to 1957—Con.

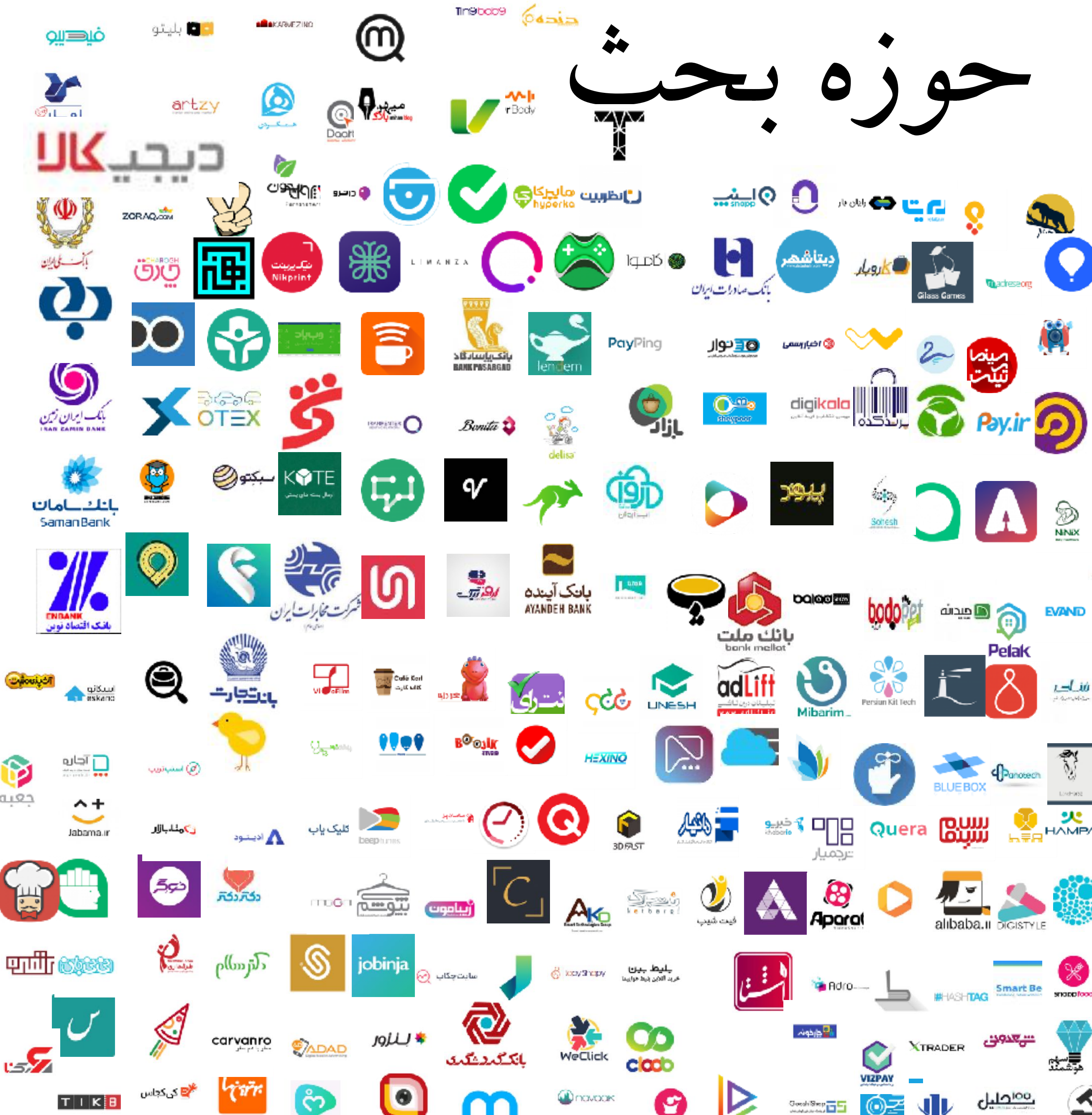
School year ending—	All degrees			Bachelor's or first professional			Master's or second professional			Doctor's or equivalent		
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female
	327	328	329	330	331	332	333	334	335	336	337	338
1920.....	53,316	35,487	18,029	48,622	31,980	16,642	4,279	2,985	1,294	615	522	93
1918.....	42,041	28,566	13,475	38,585	26,269	12,316	2,900	1,808	1,094	556	491	65
1916.....	49,823	35,372	14,451	45,250	31,832	13,398	3,906	2,934	972	667	586	81
1915.....	48,100	34,604	13,496	43,912	31,417	12,495	3,577	2,638	939	611	549	62
1914.....	48,097	34,925	13,172	44,268	32,183	12,085	3,270	2,256	1,014	559	496	73
1913.....	45,959	33,814	12,145	42,396	31,312	11,084	3,025	3,021	1,004	538	481	57
1912.....	42,943	32,211	10,732	39,498	29,560	9,848	3,035	2,215	820	500	436	64
1911.....	40,434	30,817	9,617	37,481	28,547	8,934	2,456	1,821	635	497	449	48
1910.....	39,755	30,716	9,039	37,199	28,762	8,437	2,113	1,555	558	443	399	44
1909.....	40,531	31,543	8,988	37,892	29,433	8,459	2,188	1,713	475	451	397	54
1908.....	36,182	28,228	7,954	33,809	26,376	7,434	1,971	1,511	460	391	329	52
1907.....	34,202	26,804	7,398	32,234	25,269	6,965	1,619	1,215	404	349	300	29
1906.....	34,189	26,939	7,250	32,019	25,215	6,804	1,787	1,366	421	383	358	25
1905.....	33,813	26,813	7,000	31,519	24,934	6,585	1,925	1,538	387	369	341	28
1904.....	32,514	25,879	6,635	30,501	24,237	6,264	1,679	1,340	339	334	302	32
1903.....	31,962	25,559	6,403	29,907	23,872	6,035	1,718	1,385	333	327	302	35
1902.....	31,117	24,953	6,164	28,966	23,225	5,741	1,858	1,464	394	293	264	29
1901.....	30,790	24,838	5,952	28,681	23,099	5,582	1,744	1,405	339	365	334	31
1900.....	29,375	23,812	5,563	27,419	22,173	5,237	1,583	1,280	303	382	359	23
1899.....	27,887	22,666	5,221	25,980	21,064	4,916	1,542	1,275	267	345	327	18
1898.....	26,816	21,831	4,985	25,032	20,358	4,674	1,440	1,188	252	324	285	39
1897.....	26,963	22,012	4,951	25,231	20,550	4,681	1,413	1,163	250	319	299	20
1896.....	26,342	21,525	4,817	24,593	20,076	4,517	1,478	1,213	265	271	236	35
1895.....	25,712	21,094	4,618	24,106	19,723	4,383	1,334	1,124	210	272	247	25
1894.....	23,352	19,191	4,161	21,850	17,917	3,933	1,223	1,013	210	279	261	18
1893.....	19,989	.....	.....	18,697	15,342	3,355	1,104	.....	.....	218	.....	.....
1892.....	17,722	.....	.....	16,892	13,840	3,052	730	.....	.....	190	.....	.....
1891.....	17,803	.....	.....	16,840	13,992	2,938	776	.....	.....	187	.....	.....
1890.....	16,700	.....	.....	15,539	12,857	2,682	1,015	.....	.....	149	147	2
1889.....	16,365	.....	.....	15,020	12,397	2,623	1,161	.....	.....	124	.....	.....
1888.....	16,363	.....	.....	15,256	12,562	2,694	987	.....	.....	140	.....	.....
1887.....	14,402	.....	.....	13,402	11,098	2,304	923	.....	.....	77	.....	.....
1886.....	14,040	.....	.....	13,097	10,731	2,366	859	.....	.....	84	.....	.....
1885.....	15,882	.....	.....	14,734	12,043	2,691	1,071	.....	.....	77	.....	.....
1884.....	13,732	.....	.....	12,765	10,498	2,267	901	.....	.....	66	.....	.....
1883.....	16,029	.....	.....	15,116	12,294	2,822	863	.....	.....	50	.....	.....
1882.....	15,928	.....	.....	14,598	12,168	2,430	884	.....	.....	46	.....	.....
1881.....	15,830	.....	.....	14,871	12,035	2,836	922	.....	.....	37	.....	.....
1880.....	13,829	.....	.....	12,896	10,411	2,485	879	.....	.....	54	51	3
1879.....	12,036	.....	.....	12,081	9,808	2,273	919	.....	.....	36	.....	.....
1878.....	12,381	.....	.....	11,523	9,416	2,117	816	.....	.....	22	.....	.....
1877.....	10,915	.....	.....	10,145	8,329	1,816	731	.....	.....	39	.....	.....
1876.....	12,871	.....	.....	12,005	9,911	2,094	835	.....	.....	31	.....	.....
1875.....	12,416	.....	.....	11,932	9,965	2,027	661	.....	.....	23	.....	.....
1874.....	12,366	.....	.....	11,493	9,593	1,900	860	.....	.....	13	.....	.....
1873.....	11,723	.....	.....	10,807	9,070	1,737	890	.....	.....	26	.....	.....
1872.....	8,660	.....	.....	7,852	6,626	1,226	794	.....	.....	14	.....	.....
1871.....	12,370	.....	.....	12,357	10,484	1,873	.....	.....	.....	19	.....	.....
1870.....	9,372	.....	.....	9,371	7,993	1,378	.....	.....	.....	1	1	.....

Series R 1-9. Telephones and Average Daily Calls (Bell and Independent Companies): 1876 to 1956

[In thousands, except series R 2. Census figures in italics]

Year	Telephones					Average daily calls			
	Total		Bell	Independent companies		Bell		Independent companies	
	Number	Per 1,000 population		Connecting with Bell	Not connecting with Bell	Local exchange	Toll	Local exchange	Toll
	1	2	3	4	5	6	7	8	9
1956	60,190	254.5	50,506	9,191	3	175,726	8,619	31,574	1,281
1955	56,243	237.2	47,684	8,556	3	166,383	7,409	30,917	91
1954	52,806	222.1	44,704	8,099	3	157,391	6,793	29,139	77
1953	50,373	212.7	42,672	7,697	4	151,618	6,539	28,067	76
1952	48,056	203.3	40,676	7,376	4	147,383	6,352	27,292	73
1951	45,636	192.9	38,612	7,016	8	143,216	6,226	26,384	74
1950	43,004	180.9	36,478	6,517	9	138,861	6,115	25,539	85
1949	40,709	170.4	34,462	6,237	10	129,824	6,113	23,961	102
1948	38,205	158.1	32,386	5,807	12	123,025	6,065	22,500	90
1947	34,867	139.7	29,456	5,398	13	112,947	5,914	20,353	86
1946	31,611	121.3	26,577	5,020	14	103,720	5,553	18,645	82
1939	13,329	123.9	8,334	4,268	727	31,836	1,327	18,371	263
1938	12,669	119.7	7,739	4,057	874	29,286	1,167	18,158	276
1937	12,078	115.2	7,282	3,864	1,012	30,061	1,067	18,753	285
1936	11,717	112.7	7,032	3,458	1,258	30,845	1,009	19,783	302
1935	11,241	109.5	6,545	3,348	1,348	28,530	890	19,856	302
1934	10,524	103.9	5,968	3,204	1,351	25,184	819	18,535	282
1933	10,046	100.6	5,585	3,074	1,398	22,775	799	17,198	262
1932	9,543	97.2	5,255	2,878	1,409	22,255	806	17,640	272
1931	8,720	87.	5,087	2,809	.....	.....	.....	.....	.....
1930	8,730	90.7	4,804	2,496	1,430	21,532	758	18,064	275
1929	8,349	88.3	4,352	2,281	1,716	19,773	645	17,468	266
1928	7,635	82.0	3,933	1,950	1,753	18,256	602	17,043	260
1927	6,996	76.5	3,527	1,621	1,853	16,777	517	16,213	247
1926	6,484	72.4	3,176	1,188	2,119	15,576	463	15,717	239
1925	6,119	70.	2,727	.....	.....	.....	.....	.....	.....
1924	6,119	69.6	3,023	808	2,280	15,286	494	13,814	210
1923	4,933	57.2	2,724	297	1,862	13,875	461	11,430	175
1922	4,127	48.8	2,285	246	1,595	11,404	368	9,756	148
1921	3,353	40.4	1,838	167	1,348	9,388	301	7,884	120
1920	2,809	34.5	1,564	121	1,124	8,316	258	6,903	105
1919	2,377	30.	1,377	.....	.....	.....	.....	.....	.....
1918	2,371	29.7	1,317	84	970	7,850	240	6,146	94
1917	1,801	23.0	1,061	48	692	6,342	187	4,468	68
1916	1,356	17.6	836	20	500	4,773	149	2,916	44
1915	1,005	13.3	667	10	328	5,174	133	.....	.....
1914	681	9.2	496	.....	185	3,823	95	.....	.....
1913	515	7.1	415	.....	100	3,699	75	.....	.....
1912	404	5.7	354	.....	50	2,630	63	.....	.....

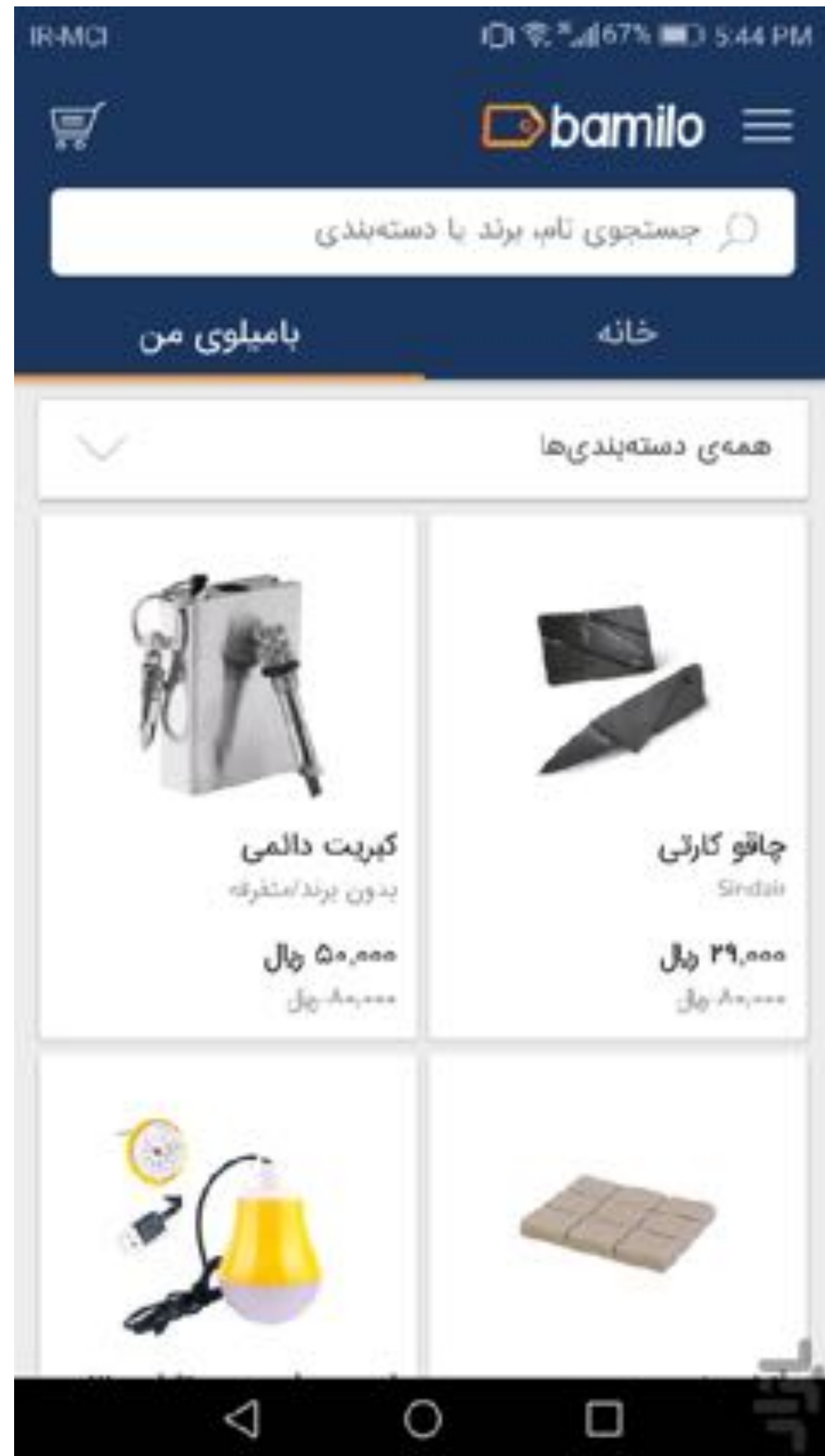
حوزه بحث



مشاهده هزینه سفر قبل از درخواست
 گزینه‌های سفر دو مقصد، رفت و برگشت، توقف در مسیر ✓

سرویس مناسب خود را
 انتخاب کنید

هر جایی که هستید درخواست پیک،
 تاکسی موتوری و وانت بدهید



مرجع آگاهی از قیمت کالاهای دست دوم

The image shows a smartphone screen displaying a car listing application. The interface is in Persian and features a list of BMW vehicles. Each listing includes a small image of the car, the model name, and the price in Iranian Rials (Toman). The visible listings include:

- bmw z4 2.8
- bmw520
- Bmw 330 2009 M packag

The app also shows a search bar at the top and a navigation menu on the left side.

The image shows a smartphone screen displaying a search interface for second-hand goods. The interface is in Persian and features a search bar at the top. Below the search bar, there are several input fields and a search button. A magnifying glass icon is positioned at the bottom of the screen, symbolizing search or discovery.

The image shows a smartphone screen displaying a grid of product listings for second-hand goods. The interface is in Persian and features a search bar at the top. Below the search bar, there are several product listings, each with a small image of the product, the product name, and the price in Iranian Rials (Toman). The visible listings include:

- 1016D (Mobile phone)
- Karcher K2 Basic Carwash
- Apple iPhone 7 -128GB
- Microsoft Lumia 650 DUAL

The app also shows a navigation menu at the bottom with icons for profile, search, and recommendations.









Donald Trump America

Screened - All

Like Page

We call for disqualification and removal of Hillary Clinton from the presidential ballot as dynastic succession of the Clinton family in American politics breaches the core democratic principles laid out by our Founding Fathers. Sign the petition!

WE *the*
PEOPLE
YOUR **VOICE** IN THE WHITE HOUSE

Disavow support for the Clinton political dynasty.
Disqualify and remove Hillary Clinton from 2016
Presidential Ballot | We the People: Your Voice in Our...

PETITION.WEYHOUSE.COM

11K Hashtags 11K Comments 160 Shares

Like

Comment

Share



Army of Jesus

Sponsored · 🌐

👍 Like Page

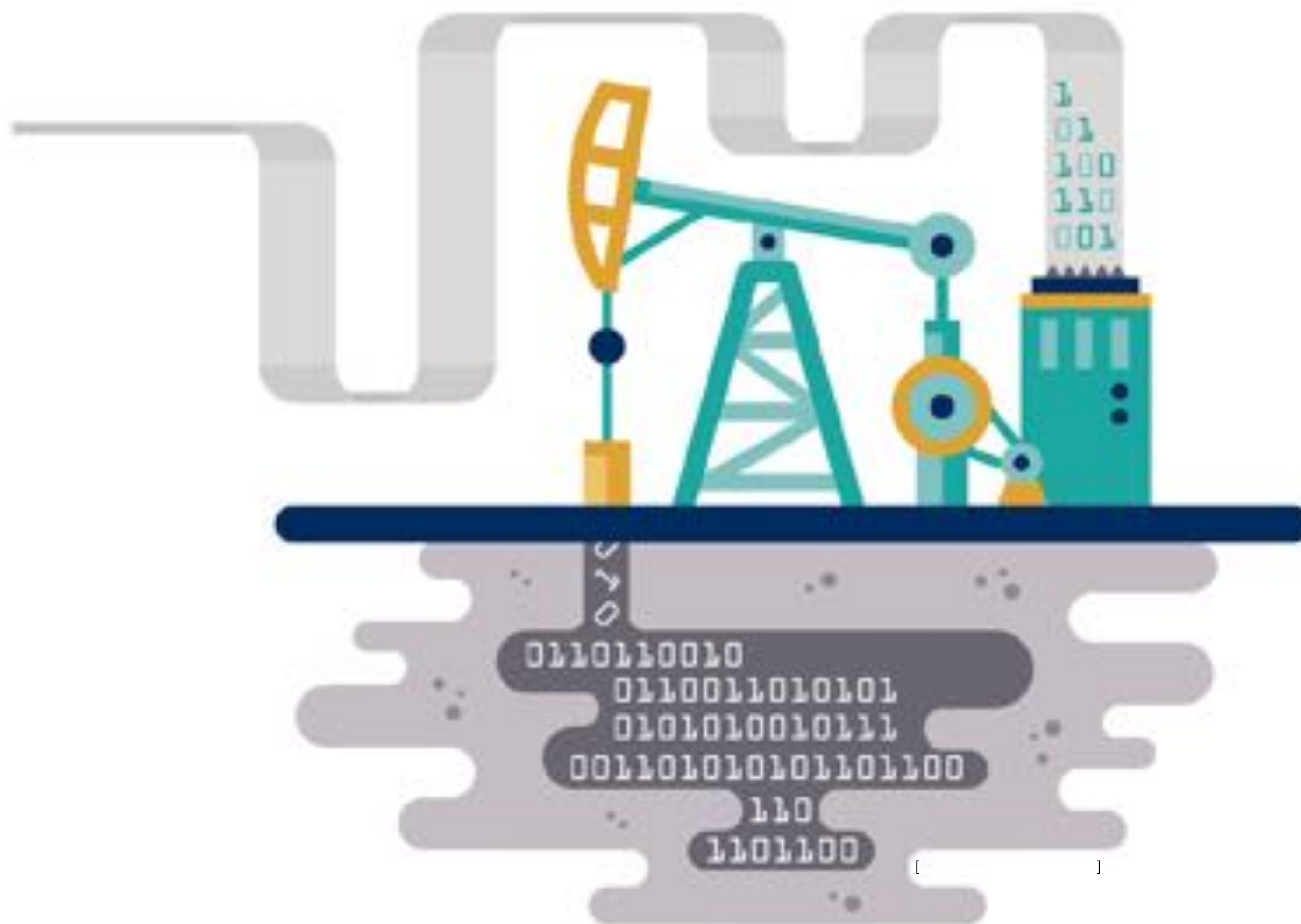
Today Americans are able to elect a president with godly moral principles. Hillary is a Satan, and her crimes and lies had proved just how evil she is. And even though Donald Trump isn't a saint by any means, he's at least an honest man and he cares deeply for this country. My vote goes for him!

**SATAN: IF I WIN CLINTON WINS!
JESUS: NOT IF I CAN HELP IT!**



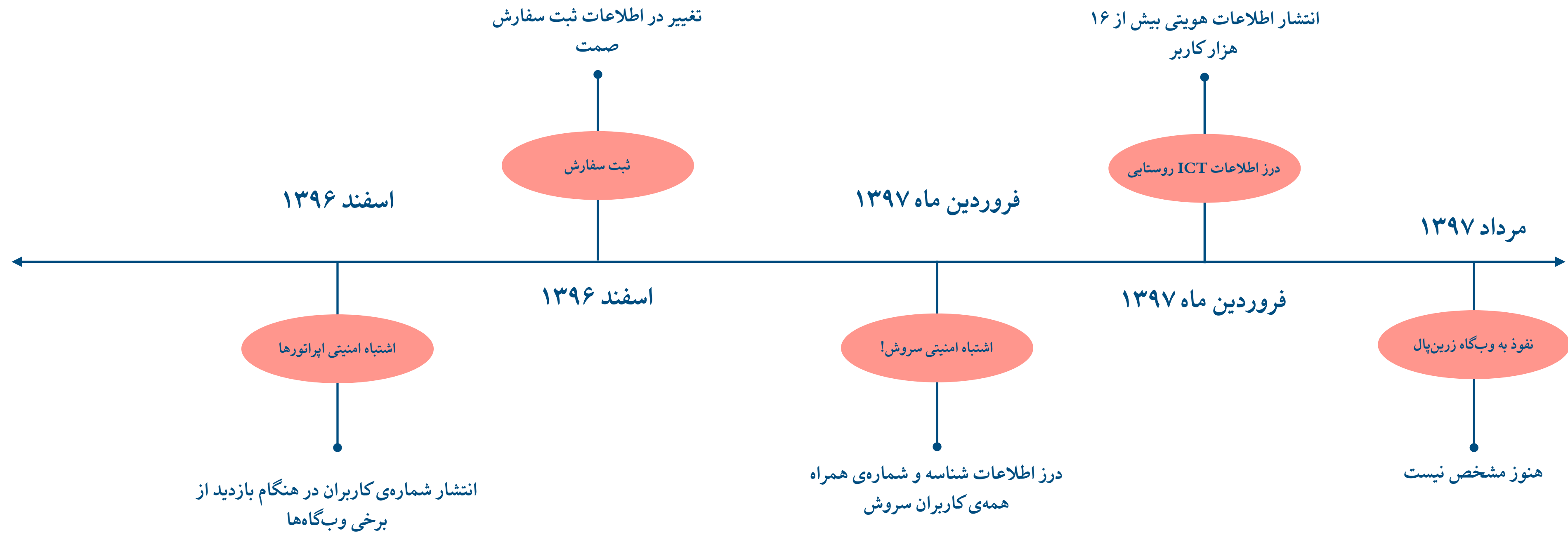
PRESS 'LIKE' TO HELP JESUS WIN!

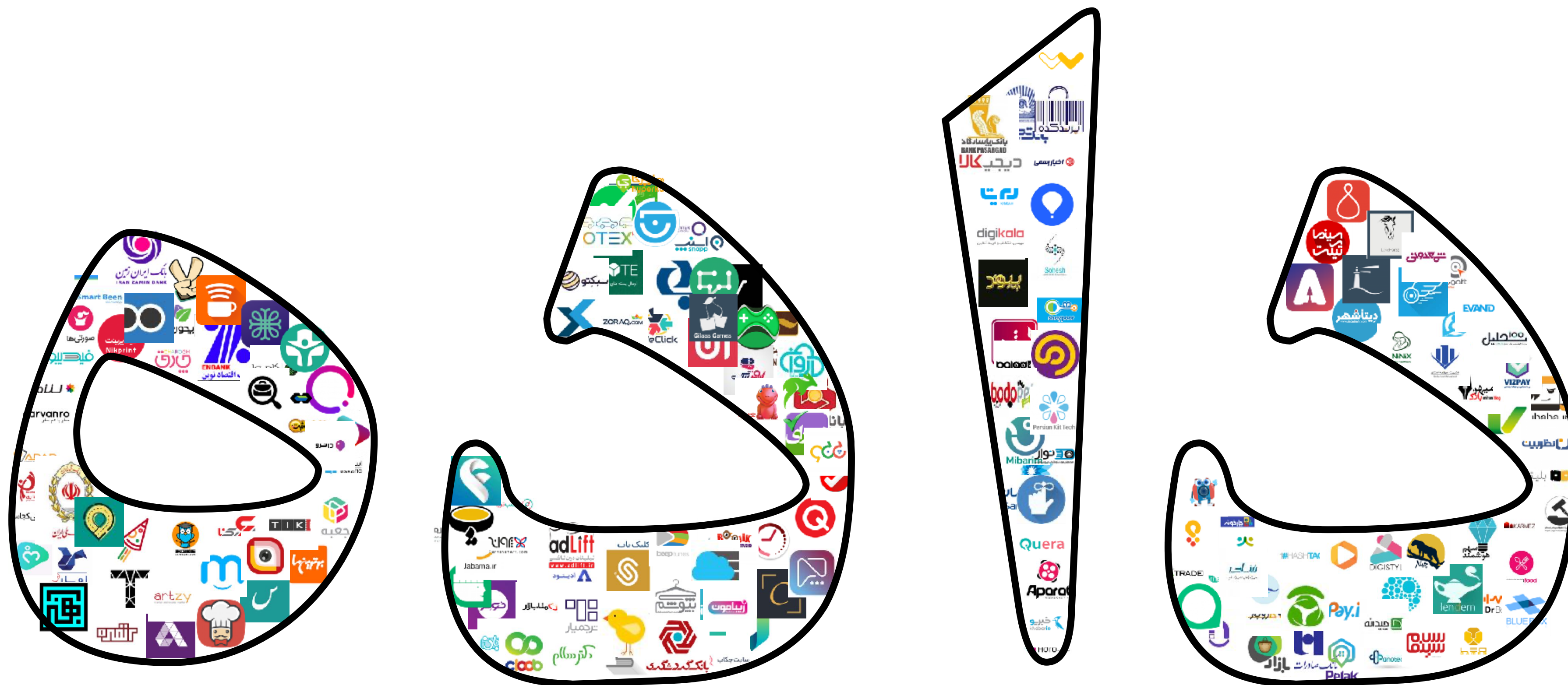
داده = نفت



البته مانند نفت، داده پردازش شده بسیار با ارزش تر است

داده (در ایران) =



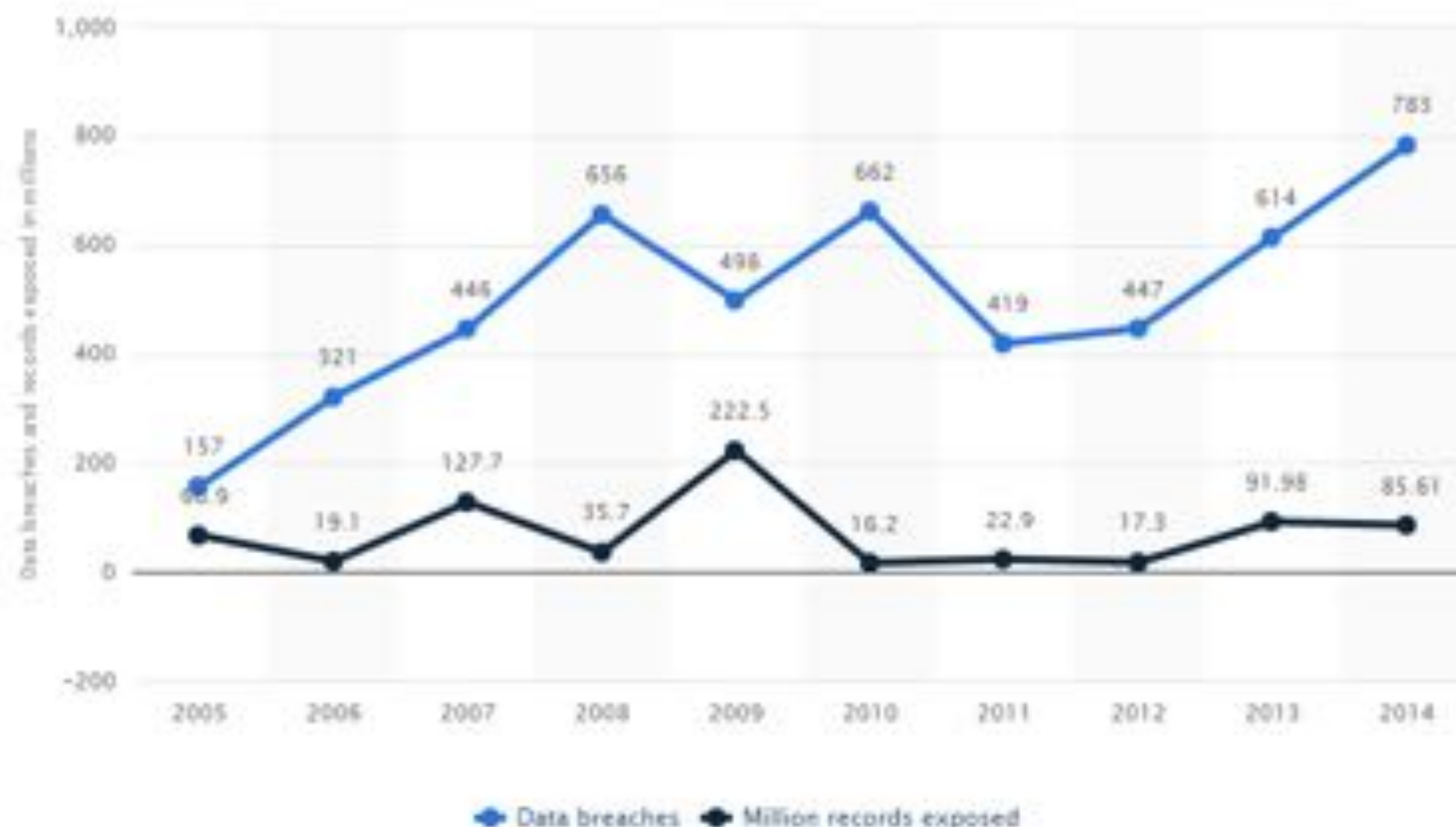


هزینه امن سازی \geq هزینه دسترسی غیر مجاز به داده ها \times احتمال آن

قوانین اطلاع رسانی دسترسی غیر مجاز به داده ها

Annual number of data breaches and exposed records in the United States from 2005 to 2014 (in millions)

The statistic presents the development of cyber attacks over time. It presents the recorded number of data breaches and records exposed in the United States between 2005 and 2014. In 2014, the number of data breaches in the United States amounted to 783 with more than 85.61 million records exposed.



مقررات عمومی حفاظت از اطلاعات



MAY 35, 2018

جرایم تا ۲۰ میلیون یورو و یا ۴٪ در آمد جهانی، هر کدام که بیشتر باشد

- جایگزین قانون قبلی در سال ۱۹۹۵
- حفاظت از اطلاعات با طراحی و بصورت پیش فرض
- برای مثال گمنام سازی داده در هر جا که ممکن است
- تنظیمات حریم خصوصی در حالت حداکثری بصورت پیش فرض
- توضیح شفاف در مورد نحوه استفاده و پردازش داده، مدت زمان نگهداری و اگر با دیگران به اشتراک گذاشته می شود.
- امکان دریافت اطلاعات ذخیره شده از کاربر، توسط کاربر و حق درخواست برای کاربر برای پاک کردن اطلاعات خود
- ایجاد پست سازمانی مدیر حفاظت از داده در شرکتهایی که فعالیتشان حول محور پردازش داده های دریافتی از کاربران می باشد
- اعلام موارد دسترسی غیر مجاز به داده ها در ۷۲ ساعت

هزینه امن سازی \geq هزینه دسترسی غیر مجاز به داده ها x
احتمال آن



• نیروی متخصص

• طراحی امن

• فرهنگ سازی

• و غیره

تأثير هزینه



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k-m: 038DATT1-CIFD-496F-AE37-4A0EA5C9F979
Content-Length: 126
User-Agent: Snapp/3.10.2 (iPhone; iOS 11.4.1; Scale/3.00)
k-app-version: 3.10.2
Connection: close

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درخواست اسنپ

پاسخ سیستم عامل



کمینه نمودن هزینه

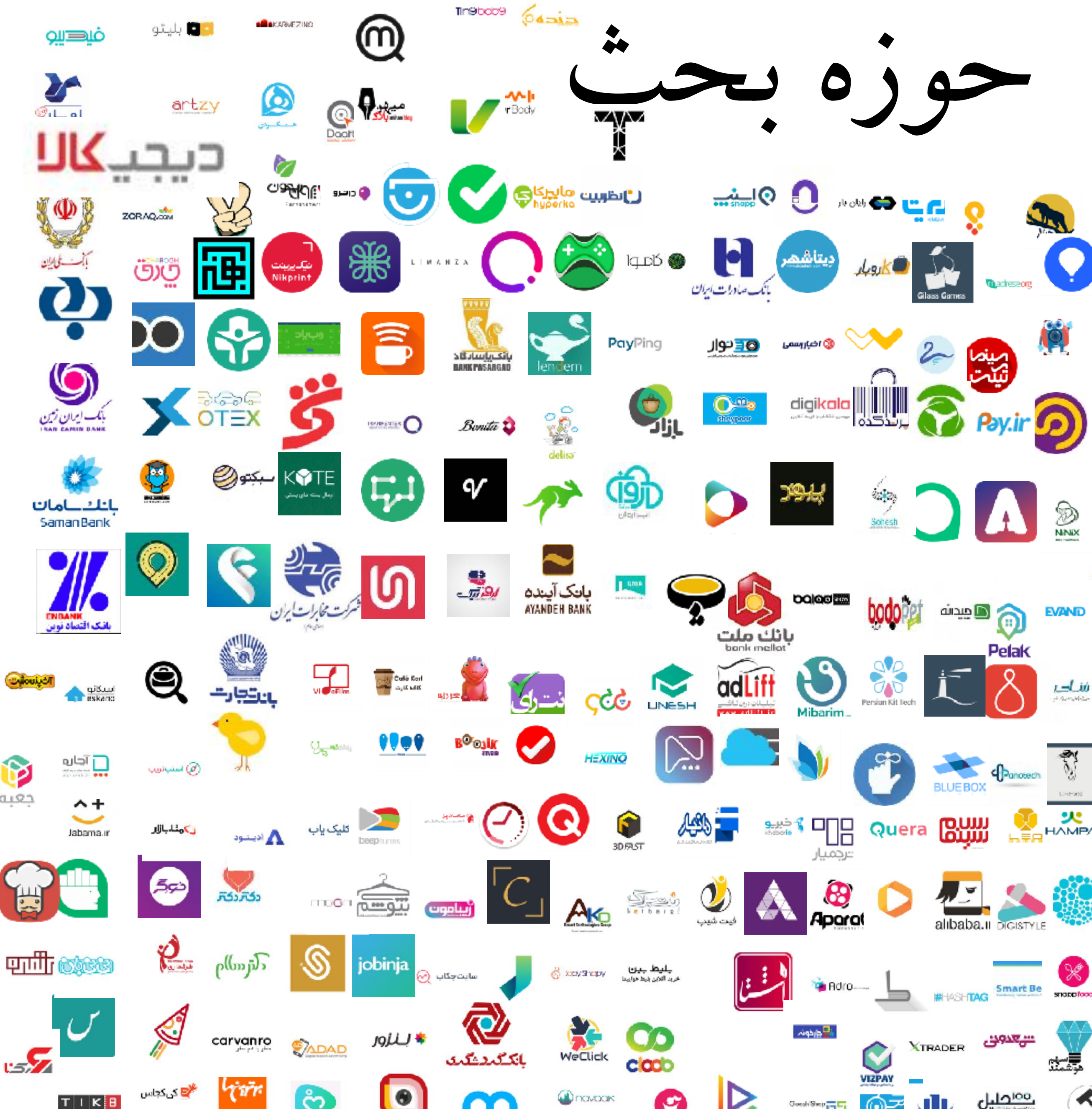
دغدغهی شما برای ما مهم است

سیستم عامل های اندروید و آی او اس امکان رویت نام اپلیکیشن های نصب شده روی گوشی هوشمند را برای همه ی اپ ها فراهم کرده اند و اهل فن می دانند که استفاده از آن به معنای دسترسی به محتوای اپلیکیشن ها و اطلاعات شخصی افراد در تلفن همراهشان نیست. اسنپ نیز با این امکان تنها از نصب اپلیکیشن های مشابه با خبر می شده و صرفا در تحقیقات بازاریابی خود از آن استفاده می کرده است. با این حال، دغدغهی به وجود آمده می تواند ما را از مسیر اصلی دور سازد و باعث آزردهی خاطر مخاطبانمان شود. از آنجایی که رضایت کاربران همیشه برای ما در اولویت بوده و همچنین برای رفع هرگونه سوءتعبیر، فعلا از این امکان صرف نظر و کد درخواست را از سمت سرور حذف کرده ایم. در نسخه های بعدی اپلیکیشن مسافر، این امکان به صورت اختیاری فعال خواهد شد، تا افرادی که مایلند در ارائه ی بهتر به ما کمک کنند.

امیدواریم به این ترتیب بتوانیم به وظیفه اصلی مان که بهبود خدمات حمل و نقلی کشور است بهتر عمل

کنیم.

حوزه بحث



لایحه «صیانت و حفاظت از داده‌های شخصی»

