

# **INFORMATIZATION OF SOCIETY AND NATIONAL SECURITY**

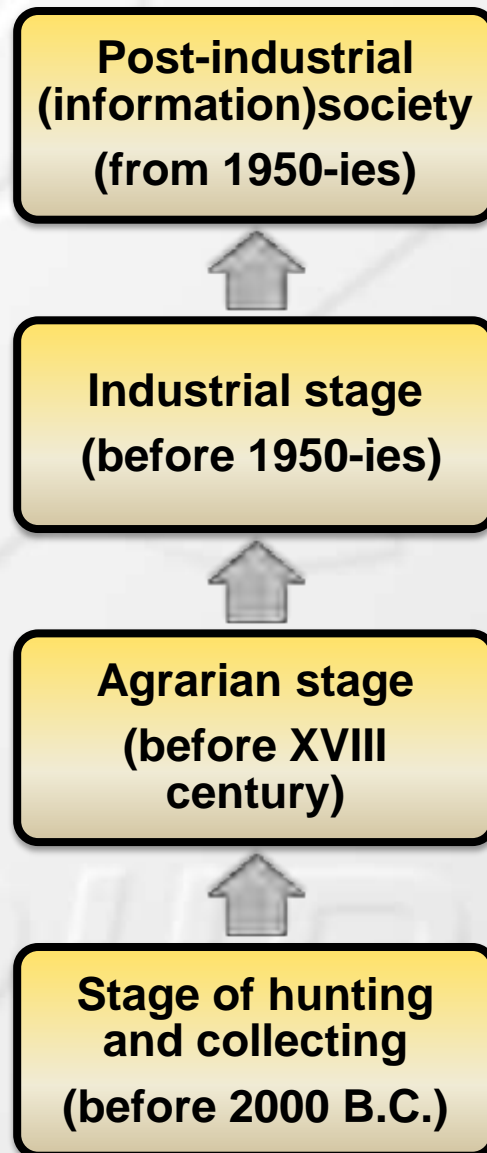
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# STAGES OF MANKIND DEVELOPMENT



**INFORMATION SOCIETY** – is a society, where information generation and consumption present the most important activity; information is recognized as the most significant strategic resource; new information and communication technologies (ICT) become basic technologies; at that information and communication infrastructure forms the society infrastructure basis.

**INFORMATION SOCIETY = REASONABLE  
POWER +  
+ INFORMATIZATION OF ALL COUNTRY**  
*(R. M. Yusupov)*

**COMMUNISM = SOVIET POWER +  
+ ELECTRIFICATION OF ALL COUNTRY**  
*(V. I. Lenin)*

**INFORMATIZATION** – is a social and man-caused process aimed at creating and mass application of info-telecommunication technologies and means, and providing for attainment and support of the population (to a man) awareness level necessary and sufficient for cardinal improvement of working and living conditions for each human being

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# INTERNATIONAL STATUS OF INFORMATION SOCIETY NOTION

- **1998** – suggestion of the International Electric Communications Union about running under UN aegis World Summit re information society problems
- **1999** – adoption of «Electronic Europe 2002» program
- **2000** – Okinawa Charter of Global Information Society
- **2003 (Geneva), 2005 (Tunisia)** – World Summit re information society
- **2005** – forming EU framework program «European Information Society»

# **RUSSIAN FEDERATION (RF) PUBLIC POLICY IN INFORMATIZATION AND INFORMATION SOCIETY FORMING IN RF**

- 1. FTP «Electronic Russia ( years 2002-2010)»** *(RF Government Regulation dated 28.01.2002 №65).*
- 2. Concept of Regional Informatization** *(RF Government Instructions dated 17.07.2006 №1024-p).*
- 3. Strategy of developing information society in RF** *(RF President Decree dated 7.02.2008 ПП-212).*
- 4. Concept of forming electronic government in RF up to 2010** *(RF Government Instructions dated 6.05.2008 №632-p).*
- 5. Establishing a Council on developing information society under the Russian Federation President** *(RF President Decree dated 1.11.2007 №1576).*
- 6. Concept: «Strategy of St. Petersburg transition to information society»** *(St. Petersburg Government Regulation dated 16.08.1999 №36 ).*

**INFORMATION SOCIETY**

**INDUSTRIAL SOCIETY**

SPHERES AGGREGATE OF PEOPLE'S CO-OPERATIVE ACTIVITY

ECONOMY

POLITICS

CULTURE

EDUCATION

SCIENCE

**NATIONAL  
SECURITY**

.....

**MEDICAL  
CARE**

**INFORMATION AND COMMUNICATION TECHNOLOGIES**

**INFORMATIZATION**



# RUSSIAN FEDERATION STATE PUBLIC POLICY IN NATIONAL SECURITY

1. Federal Law of Security (*dated 05.03.1992*)
2. Concept of the Russian Federation National Security  
(*first version dated 17.12.1997;*  
*second version dated 10.01.2000*)
3. Doctrine of the Russian Federation Information Security  
(*dated 09.09.2000*)
4. Strategy of the Russian Federation National Security up to  
2020 (*dated 12.05.2009*)
5. Military Doctrine of the Russian Federation (*dated 5.02.2010*)

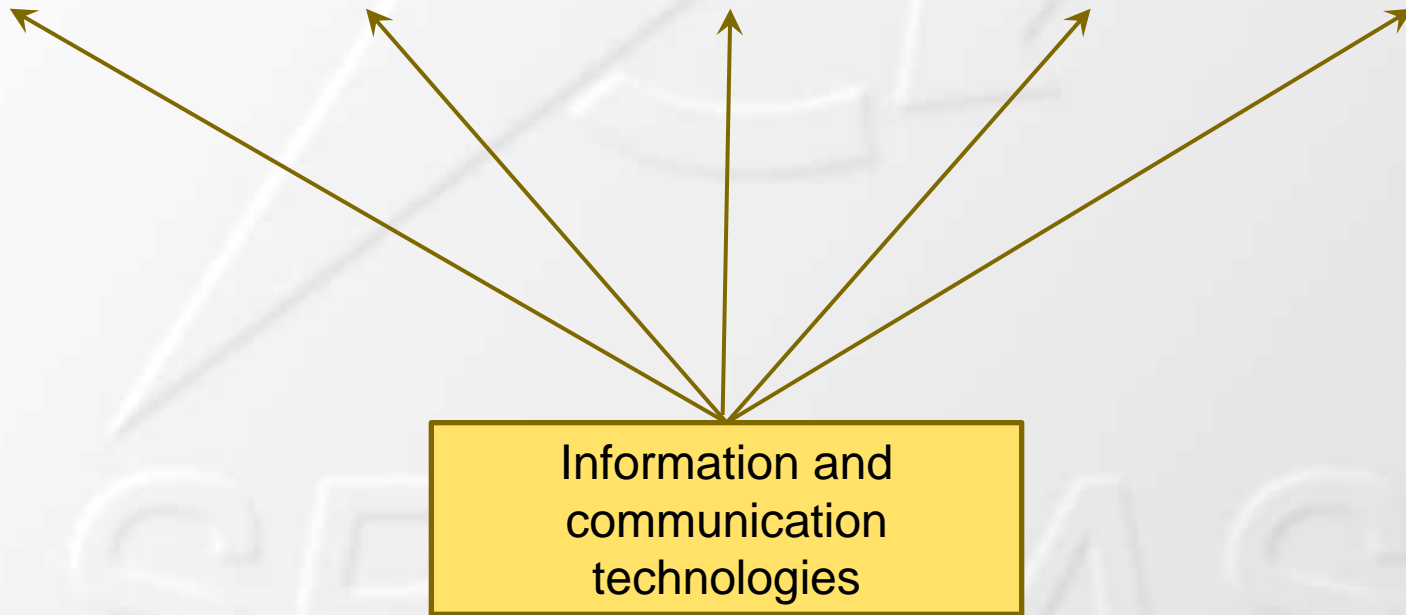
**NATIONAL SECURITY** – state of individual, society and state protection from internal and external threats that would guarantee constitutional rights, freedoms, high life standard, sovereignty, territorial integrity and stable development of the Russian Federation, the state defense and security.

*(Strategy of the RF National Security up to 2020)*

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# ICT IMPACT ON MAIN CONSTITUENTS OF NATIONAL SECURITY

Geopolitics and national interests	Threats to national security	Strategic national priorities (NS directions)	System of NS ensuring	
			Ensuring forces	Ensuring means



**INFORMATION GEOPOLITICS** – main constituent of information society geopolitics. Information impact (interaction) – is the most important instrument of IS geopolitics. ICT penetration into all spheres of individual, society and state vital activity is one of essential factors determining geopolitical pattern of the modern world..

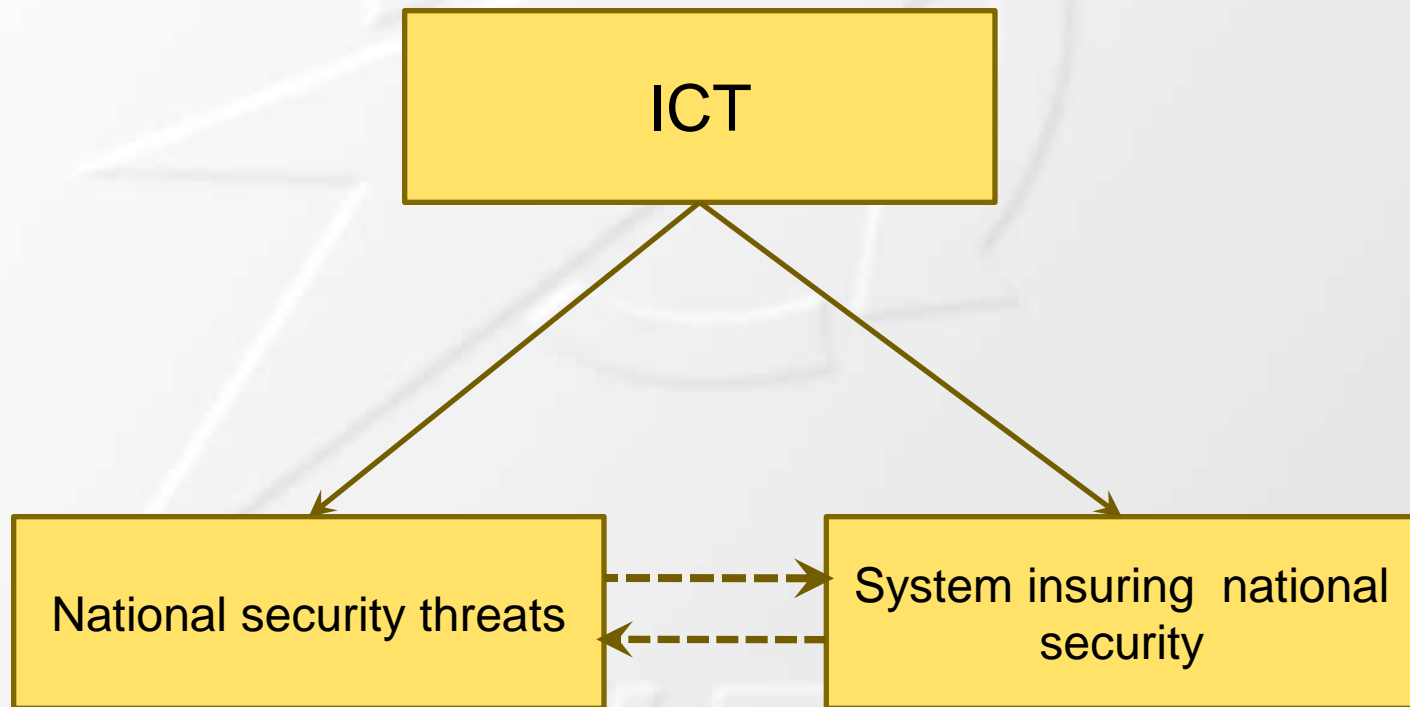
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# RF NATIONAL INTERESTS OF IN INFORMATION SPHERE

- Observance of individual's and citizen's constitutional rights and freedoms in information acquisition and use.
- Information ensuring of state policy.
- Development of advanced information technologies, domestic information industry including industry of informatization, telecommunication and communication means, providing the needs of internal market with its products and ensuring its world market entry, as well as ensuring accumulation, safety and efficient use of national information resources.
- Securing information resources from unauthorized access, guaranteeing safety of information and telecommunication systems.

*(Doctrine of RF Information Security.  
Approved by the RF President on 9.09.2000)*

# AMBIVALENT CHARACTER OF ICT IMPACT ON NATIONAL SECURITY PROBLEM



# ICT IMPACT UPON DEVELOPING POWERS AND MEANS FOR NATIONAL SECURITY INSURING

## **FORCES INSURING NATIONAL SECURITY** –

Russian Federation Armed Forces and other troops and organs where in accordance with Federal Legislation military and/or law-enforcement service is envisaged as well as Federal Organs of Government that partake in insuring the State National Security based on the Russian Federation Legislation;

**MEANS INSURING NATIONAL SECURITY** – technologies as well as technical, software, linguistic, legal, managerial means including telecommunication channels being used in the system of National Security insuring for acquisition, forming, processing, transmission or receiving information about the National Security state and measures for its strengthening.

*(Strategy of the RF National Security up to 2020)*

# ICT IMPACT UPON DEVELOPING POWERS AND MEANS FOR NATIONAL SECURITY INSURING

**INFORMATION WEAPON** is an aggregate of means, methods and information technologies that provide for efficient impact on the adversarial information sphere with the purpose of destructing its information infrastructure, **management systems**, degrading its defense capacity, **shattering organization**. Unlike regular weapon the information one can also be actively used in peaceful time, since all national frontiers are practically «transparent» for it.

**NETWORK (NETWORKCENTRIC) WAR** – the war oriented to securing information superiority; the war in which due to powerful information support the highly intelligent forces and means confront, the war in which all forces and means get integrated in uniform network providing for circulation of adequate information about adversary, about own powers, environment, decisions made.

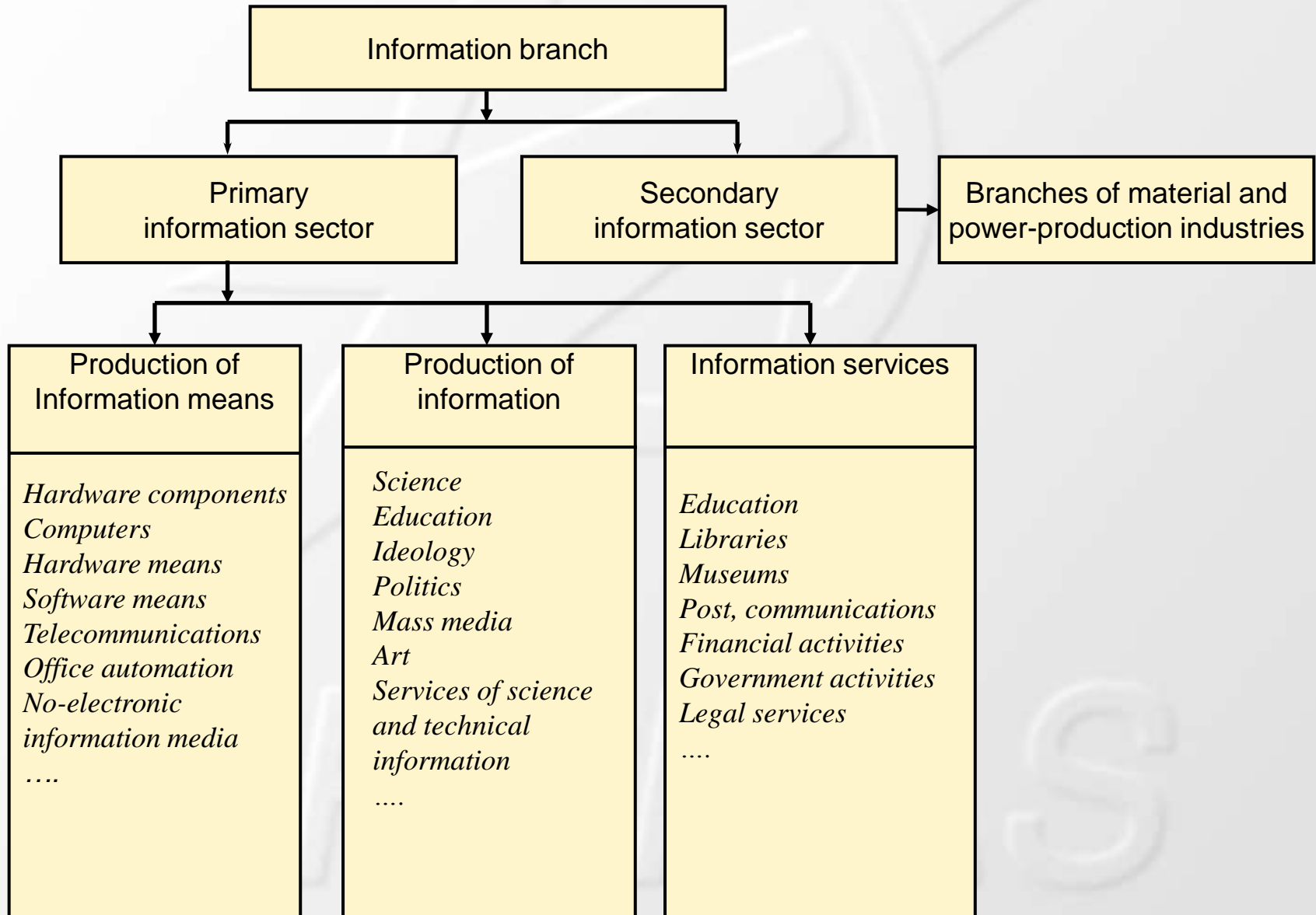


# ICT ROLE IN FORMING ECONOMY OF INFORMATION SOCIETY

- 1. ICT** forms one of the leading economy branches – information branch
- 2. ICT** – basic system of technological and information insuring forming and functioning of the information society economy.

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# STRUCTURE OF ECONOMY INFORMATION BRANCH

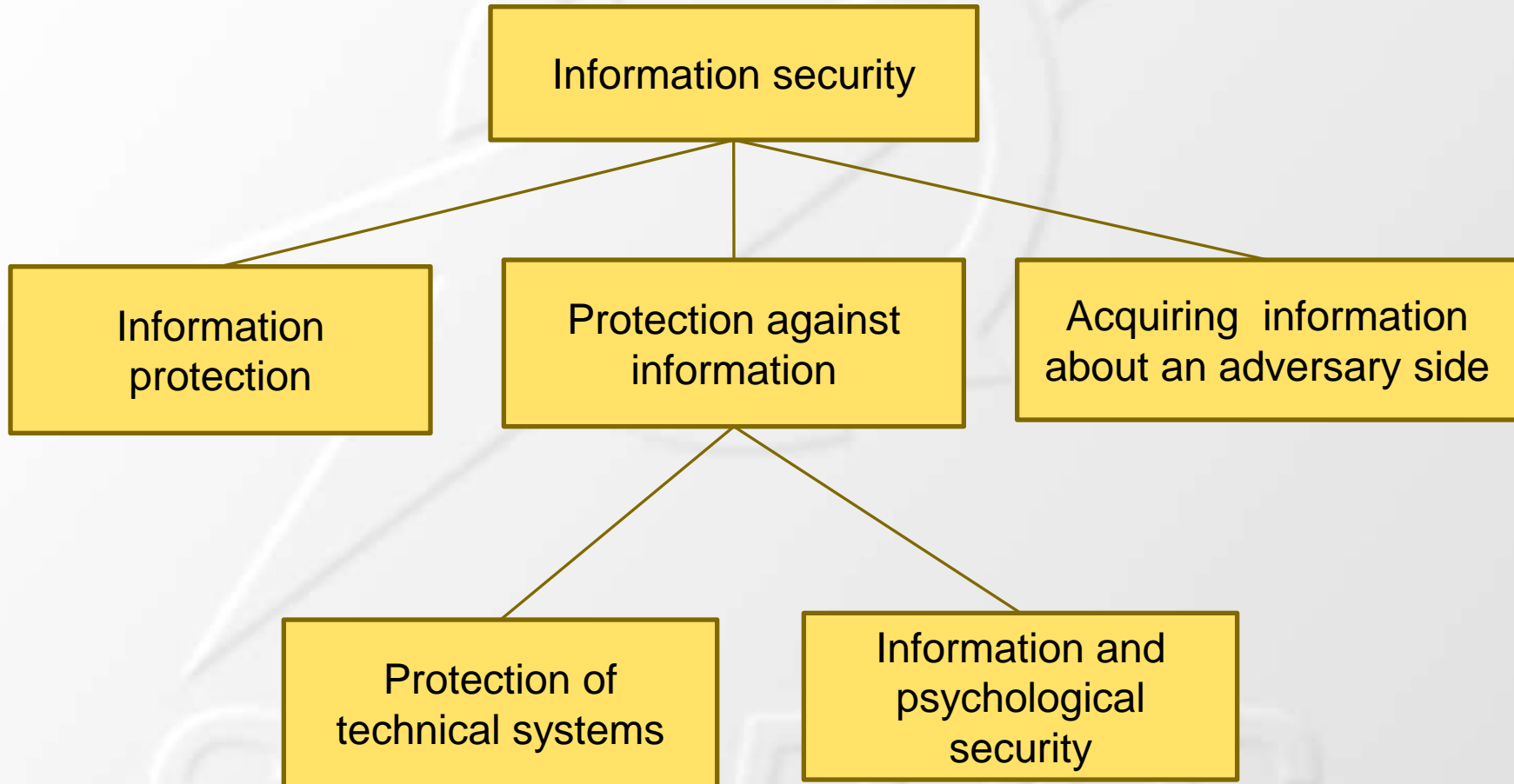


**RF INFORMATION SECURITY** – state of its national interests protection in information sphere, that are determined by an aggregate of balanced individual, society and state interests

*(Doctrine of RF Information Security  
dated 9.09.2000)*

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# STRUCTURE OF INFORMATION SECURITY PROBLEM



# **THREE «WHALES» OF USA NATIONAL SECURITY**

*(USA - CANADA, №9, 2007)*

- 1.** Leadership in ICT
- 2.** Leadership in the space (satellite observation and telecommunication systems)
- 3.** Leadership in financial technologies

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# USA FORMATIONS INSURING SECURITY IN IONOSPHERE

1. National Infrastructure Protection Center –NIPC within FBI (1998)
2. Joint operational group for protecting DoD computer network (1999)
3. Air Force CyberWars Problems' Department (2007)
4. White House & DHS Cyber Security Council (2009)
5. DoD Information Awareness Office
6. DoD Military Cyber Command
7. «Digital Troops» and other.

**Организация Объединенных Наций  
United Nation Organization**



№ \_\_\_\_\_<sup>1)</sup>

**КОНВЕНЦИЯ**

**о запрещении военного или любого иного враждебного  
использования методов и средств воздействия на инфосферу**  
*(первая редакция)*

**CONVENTION**

**on the prohibition on military or any other hostile  
use of methods and means influencing the infosphere**  
*(the first edition)*

<sup>1)</sup> За настоящим номером зарегистрирована как документ Организации Объединенных Наций в соответствии со статьей 102 Устава Организации Объединенных Наций.

# CONVENTION STRUCTURE

- 1. Preamble**
- 2. Articles 1-10**
- 3. Appendix 1. Critical systems list**
- 4. Appendix 2. Special experts' advisory committee re ionosphere safety.**

*(Magazine «Armament. Policy. Conversion»,  
№3, 1993)*

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Concept of United (Common) Centre for insuring security in cyberspace of CIS countries

(Proposal of Information Security Commission of Coordination Council for Informatization under Regional Commonwealth in Communications)

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# **SOME NEGATIVE FACTORS IMPEDING ICT DEVELOPMENT IN THE INTERESRS OF ECONOMY AND NATIONAL SECURITY ASSURANCE**

- Preserved priority of developing raw materials sector in economy.
- Real underestimate of science importance in economy development and low demand for research results received in Russia by national scientists.
- Low information culture of government officials and population.
- Low not meeting advanced requirements level of computer and communication (Internet) infrastructure development.
- Imperfection of ICT tax system and legal norms.
- Insufficient investment in ICT branch.
- Geographical heterogeneity of ICT development (digital disparity).
- High dependence of domestic economy and market upon foreign ICT-products and other.

# PRIORITY DIRECTIONS IN DEVELOPMENT OF SCIENCE ENGINEERING AND TECHNOLOGY

2006	Proposals of the RF President (2009)
<ul style="list-style-type: none"><li>▪ Security and terrorism counteraction</li><li>▪ Living systems</li><li>▪ Industry of nanosystems and materials</li><li>▪ <b>Information and telecommunication systems</b></li><li>▪ Perspective weapons, defense and special technologies</li><li>▪ Rational nature management</li><li>▪ Transportation, aeronautical and space systems</li><li>▪ Power engineering and energy saving</li></ul>	<ul style="list-style-type: none"><li>▪ Energy saving including development of novelty fuels</li><li>▪ Nuclear technologies</li><li>▪ <b>Space technologies, mostly related to telecommunications (GLONASS and ground-based infrastructure)</b></li><li>▪ Medical technologies</li><li>▪ <b>Strategic information technologies including development of supercomputers and software</b></li></ul>

**THANK YOU FOR YOUR TIME**

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