

Summary	
<p><i>On November 15, 2017, the PRC Ministry of Science and Technology announced the formation of the "New Generation Artificial Intelligence Strategic Advisory Committee." The purpose of the committee is to provide input to the Chinese government on S&T development plans and projects that involve AI. Most of the 27 members of the committee have academic and research backgrounds, but the group includes five industry representatives as well. This product summarizes Chinese government and media reporting on the committee and includes a short biographical profile of each committee member.</i></p>	
<p>Title Profiles of Members of China's New Generation Artificial Intelligence Strategic Advisory Committee</p>	
<p>Sources See footnotes</p>	
<p><i>For profiles of members of another Chinese state AI advisory body, the PRC Ministry of Education Artificial Intelligence Technology Innovation Expert Group, see:</i> https://cset.georgetown.edu/wp-content/uploads/t0104_MOE_AI_groups_EN.pdf</p>	
<p>Translation Date April 13, 2020</p>	<p>Translator and Annotator Ben Murphy, CSET Translation Lead</p>

The PRC Ministry of Science and Technology (MOST; 科技部) held a kick-off meeting for the New Generation Artificial Intelligence Development Plan¹ and related major S&T projects (重大科技项目) on November 15, 2017, according to state press agency Xinhua.²

At the meeting, Minister of Science and Technology-designate Wang Zhigang³ announced the establishment of the Next Generation Artificial Intelligence Strategic Advisory Committee (新一代人工智能战略咨询委员会), according to MOST's website.⁴ The purpose of the Strategic Advisory Committee, Wang explained, is to provide advice on "major deployments" (重大部署) related to the development of AI in China. The Strategic Advisory Committee is comprised of 27 individuals, namely:

- Pan Yunhe, head of the Committee and an academician of the Chinese Academy of Engineering (CAE);

¹ For an English translation of the Next Generation AI Development Plan (新一代人工智能发展规划), see: <https://www.newamerica.org/cybersecurity-initiative/digichina/blog/full-translation-chinas-new-generation-artificial-intelligence-development-plan-2017/>

² http://www.cac.gov.cn/2017-11/16/c_1121964697.htm

³ The Next Generation AI meeting was held during the "lame duck" period between the 19th Party Congress in October 2017—immediately after which new party leaders were appointed—and the first session of the 13th National People's Congress in March 2018, when new government leaders took office. Wang Zhigang (王志刚) had been promoted to the top party post at MOST—secretary of MOST's party group—by November 2018, making him the heir apparent to then-Minister of Science and Technology Wan Gang (万钢). But Wang did not officially replace Wan as the head of MOST until March 2018.

⁴ http://www.ia.cas.cn/xwzx/ttxw/201711/t20171121_4896939.html

- 16 additional academicians of either CAE or the Chinese Academy of Sciences (CAS): Chen Chun, Li Wei, Gao Wen, Zheng Nanning, Wu Cheng, Li Bohu, Lü Yuegang, Mei Hong, Cao Xuetao, Wang Tianran, Lü Jian, Wu Zhiqiang, Huang Ru, Liu Ming, Xu Zongben, and Wu Manqing;
- Three researchers: Xu Bo, Li Bin, and Zhao Chunjiang;
- Two professors: Liu Zhong and Xue Lan;
- And five representatives from industry: Min Wanli, Wang Haifeng, Yao Xing, Hu Yu, and Yu Kai.

Min Wanli, a member of the Strategic Advisory Committee, told popular PRC economic newspaper *21st Century Business Herald* (21世纪经济报道) in a November 2017 interview that the Committee's job is to provide professional, strategic guidance to the Chinese government on AI matters, particularly those that pertain to the development of China's AI industry.⁵

Besides the November 15, 2017 kickoff meeting, PRC media have reported on only one other event that the entire Strategic Advisory Committee attended. On February 15, 2019, the full Committee attended the 2019 work conference of the New Generation Artificial Intelligence Development Plan Promotion Office (新一代人工智能发展规划推进办公室), according to MOST's website.⁶ The Promotion Office is comprised of representatives of 15 different PRC ministries and commissions and was established at the November 2017 kickoff meeting along with the Strategic Advisory Committee.

The following table features biographical information about each of the 27 members of the Strategic Advisory Committee, culled principally from CAS, CAE, and Chinese university websites.

⁵ http://epaper.21jingji.com/html/2017-11/27/content_75231.htm

⁶ http://iot.china.com.cn/content/2019-02/25/content_40671321.html

Members of the Next Generation AI Strategic Advisory Committee

Photo / Name	Affiliation / Background
 <p style="text-align: center;">Pan Yunhe (潘云鹤)</p>	<p>Head of the New Generation Artificial Intelligence Strategic Advisory Committee (henceforth "Strategic Advisory Committee"). Chief of the Advisory Group (咨询组) of the Ministry of Education Artificial Intelligence Technology Innovation Expert Group (教育部人工智能科技创新专家组).⁷ Academician of the Chinese Academy of Engineering (CAE). Former executive vice president (2006-2014) of CAE. Former (1995-2006) president of Zhejiang University. Pan, born 1946, holds a bachelor's degree in architecture (1970) from Tongji University and a master's degree in computer science (1981) from Zhejiang University. Pan's research interests include computer graphics, computer-aided design, AI, and industrial design.⁸</p>
 <p style="text-align: center;">Chen Chun (陈纯)</p>	<p>Member of the Strategic Advisory Committee. Professor in the School of Computer Science and Technology at, and head of the Information Science Department of, Zhejiang University. Chief scientist at the National Digital Inkjet Printing Engineering Technology Research Center (国家数码喷印工程技术研究中心). Became an academician of CAE in 2015. Former dean of the School of Computer Science and Technology at, and former dean of the School of Software at, Zhejiang University. Chen is a member of the Communist Party of China (CPC). Chen, born December 11, 1955, holds a bachelor's degree in mathematics (1982) from Xiamen University and a PhD in computer applications (1990) from Zhejiang University. His major research contributions are in applications of digital inkjet printing technology to the textile industry. In recent years, Chen has led research teams on technologies such as big data, AI, and blockchain.⁹</p>

⁷ Pan Yunhe is one of six members of the Strategic Advisory Committee who serve concurrently on the Advisory Group of the Ministry of Education AI Technology Innovation Expert Group. For more on this group, including profiles of all group members, see:

https://cset.georgetown.edu/wp-content/uploads/t0104_MOE_AI_groups_EN.pdf

⁸<https://www.cae.cn/cae/html/main/colys/25348561.html> (Chinese Academy of Engineering [中国工程院] website), accessed April 10, 2020.

⁹ <http://www.cae.cn/cae/html/main/colys/12726075.html> (CAE website), accessed April 10, 2020.



Li Wei (李未)

Member of the Strategic Advisory Committee. Since 1986, Li has been a professor in the School of Computer Science at Beijing University of Aeronautics and Astronautics (Beihang University; 北京航空航天大学; 北航大学). Member of the State Council Academic Degree Committee (国务院学位委员会). Deputy chief of the State-Owned Intelligent Computing Expert Group (国有智能计算机专家组). He became an academicien of the Chinese Academy of Sciences (CAS) in 1997. Former president (2002-2009) of Beihang University. From 1999, chief scientist of the "Research on Theory and Methods for Organization and Processing of Massive Information in a Network Environment" (网络环境下海量信息的组织与处理的理论与方法研究) and "Theoretical and Practical Research on the Interoperability and Survivability of Massive Information" (海量信息的协同性与可生存性的理论和实践研究) projects under the National Key Basic R&D Program (the 973 Program; 国家重点基础研究发展计划; 973 计划). Li, born 1943, holds a bachelor's degree in mathematics and mechanics (1968) from Peking University and later received his PhD in computer science from the University of Edinburgh. Li's research interests include practical parallel programming languages, semantic problems in parallel and communications architecture (并行及通讯结构的意义问题), parallel programming language translation, silicon compiling technology, and intelligent computing.¹⁰



Gao Wen (高文)

Member of the Strategic Advisory Committee. Deputy chief of the Advisory Group of the Ministry of Education Artificial Intelligence Technology Innovation Expert Group. Former deputy director of the National Natural Science Foundation of China (NSFC; 国家自然科学基金). Academicien of CAE. Professor in the School of Information Science and Technology at Peking University. Former executive deputy dean (2000-2004) of the Graduate School of the Chinese Academy of Sciences (now University of Chinese Academy of Sciences [UCAS]) and concurrently (2000-2003) vice president of University of Science and Technology of China (USTC). Former (1996-2000) chief of the National High-Tech R&D Program (863 Program) Intelligent Computing Expert Group (国家863智能计算机主题专家组). In 1996, Gao was designated a "youth talent" in the Chinese Academy of Sciences (CAS) "Hundred Talents Program" (百人计划). Gao, born 1956, holds a B.S. in computer science (1982) from Harbin University of Science and Technology, an M.S. in computer science (1985) and PhD in computer applications (1988) from Harbin Institute of Technology, and an additional PhD in electronics (1991) from the University of Tokyo. Gao was a

¹⁰ <https://www.buaa.edu.cn/info/1544/2017.htm> (Beihang University website), accessed April 10, 2020.

	<p>visiting researcher at the University of Tokyo in 1991 and a visiting scientist at Carnegie Mellon University in 1993. Gao's research interests include AI, computer vision, pattern recognition, image processing, multimedia data compression, multi-modal interfaces (多模式接口), and virtual reality.¹¹</p>
 <p>Zheng Nanning (郑南宁)</p>	<p>Member of the Strategic Advisory Committee. Deputy chief of the Advisory Group of the Ministry of Education Artificial Intelligence Technology Innovation Expert Group. Former president (2003-2014) of Xi'an Jiaotong University. Academician of CAE. President of the Chinese Association of Automation (CAA). Member of the Expert Advisory Committee of Microsoft Research Asia. Former chief scientist and chair of the National 863 Program Information Technology Expert Committee. Former director of the Institute of Artificial Intelligence at Xi'an Jiaotong University. Zheng, born 1952, holds a bachelor's degree in electrical engineering (1975) and an M.E. in information and control engineering (1981) from Xi'an Jiaotong University, and a PhD in electrical engineering (1985) from Keio University in Japan. Zheng's research interests include pattern recognition, computer vision, and image processing.¹²</p>
 <p>Wu Cheng (吴澄)</p>	<p>Member of the Strategic Advisory Committee. Professor in the Department of Automation at Tsinghua University. Director of the National CIMS Engineering Research Center (CIMS-ERC; 国家CIMS工程技术研究中心). Chief scientist of the "Theory and Methods for Real-Time Intelligent Control and Optimization of Complex Production and Manufacturing Processes" (复杂生产制造过程实时智能控制与优化理论方法) project of the 973 Program. Wu became an academician of CAE in 1995. From 1986, he has participated in the planning and implementation of projects for the 863 Program, served as the chief of the CIMS Expert Group, and served as the chief scientist for projects in the automation field. From 1987 to 1992, Wu completed China's first computer-integrated manufacturing system (CIMS) pilot project. Wu, born January 14, 1940, holds a bachelor's degree (1962) and a graduate degree (1966) from Tsinghua University. He was a postdoctoral fellow in the Department of Systems Engineering at Case Western Reserve University from February 1981 to March</p>

¹¹ <http://www.szpclab.com/about/leadership/> and <http://www.pcl.ac.cn/index.php/home/index/about/id/141.html> (Peng Cheng Laboratory [PCL; 鹏城实验室] English and Chinese websites), accessed April 10, 2020. Gao Wen is the director of PCL, a lab located in Shenzhen, Guangdong Province and funded by the Guangdong Provincial Government and the Shenzhen Municipal Government.

¹² <http://en.xjtu.edu.cn/info/1018/1640.htm> and <http://www.xjtu.edu.cn/jsnr.jsp?urltype=tree.TreeTempUrl&wbtreeid=1632&wbwbxjtuteacherid=597> (Xi'an Jiaotong University [西安交通大学] English and Chinese websites), accessed April 10, 2020.

	<p>1983. Wu's research interests include: grid applications (网格应用); fine-tuning of complex production systems; supply chain modeling and optimization; information integration platforms for business CIMS applications; diagnosis, modeling, and system design for business technology; and modeling, design, optimization, and actualization of complex industrial automation systems.¹³</p>
 <p>Li Bohu (李伯虎)</p>	<p>Member of the Strategic Advisory Committee. Professor in the School of Automation Science and Electrical Engineering at Beihang University. Member of various expert committees in the automation domain for, and chief of the Modern Computer-Integrated Manufacturing Systems (CIMS) Expert Group (现代集成制造系统主题专家组) of, the 863 Program. Past chairman of the board of the China System Simulation Federation (中国系统仿真学会; now the China Simulation Federation [中国仿真学会]). First-ever chairman of the board of the Asia Simulation Federation (亚洲仿真联合会). Li became an academician of CAE in 2001. Li, born November 1938, graduated from Tsinghua University in 1961. From 1980 to 1982, he was a visiting scholar at the University of Michigan. Li's research interests include system simulation and informatization (信息化) technology for the manufacturing industry. In the system simulation field, he has made contributions in simulation engineering, simulation grids, cloud simulation, and virtual prototype engineering, and was on a team that developed a prototype for China's first large spacecraft simulator.¹⁴</p>

¹³ <https://www.cae.cn/cae/html/main/colys/96944507.html> (CAE website) and http://www.au.tsinghua.edu.cn/publish/au/1714/2011/20110222102545146166508/20110222102545146166508_.html (Tsinghua University website), both accessed April 10, 2020.

¹⁴ <https://www.buaa.edu.cn/info/1544/2025.htm> and <https://ev.buaa.edu.cn/info/1056/1336.htm> (Beihang University Chinese and English websites) and <http://www.xjtu.edu.cn/info/1729/197967.htm> (Xi'an Jiaotong University website), both accessed April 11, 2020. Li attended Xi'an Jiaotong University from 1955 until he was transferred to Tsinghua University in 1958.



Lü Yuegang (吕跃广)

Member of the Strategic Advisory Committee. Member of the Standing Committee (常委) of the Science and Technology Committee (科学技术委员会) of the Central Military Commission (CMC; 中央军委). Special researcher and doctoral adviser at the Institute of Optics and Electronics of the Chinese Academy of Sciences (CAS). Vice chairman of the board of the Chinese Society for Optical Engineering. Deputy director of China North Industries Group Corporation (NORINCO) Electronic Equipment Research Institute (中国北方电子设备研究所). Delegate to the 12th National People's Congress (NPC). Lü became an academican of CAE in 2011. He has served as a professor at Harbin Institute of Technology, Tsinghua University, and Xidian University (西安电子科技大学). His military career includes a stint teaching (任教) at the Chinese People's Liberation Army (PLA) General Staff Department Zhangjiakou Communications Academy (总参张家口通信学院) from 1980 to 1984 and work in "a certain research institute" (某研究所) of the General Staff Department beginning in 1990; he was promoted to the professional or technical military rank (专业技术军衔) of major general in July 2008. Lü holds a bachelor's degree in physics from PLA Naval University of Engineering (1984) and a PhD in science (理学) from Harbin Institute of Technology (1990). He was a senior visiting scholar at the University of London from 2001 to 2002. Lü's research interests include electromagnetic field and optoelectronic technology, information processing technology, and target recognition and data fusion (数据融合) technology, particularly as regards satellite systems, earth observation from space, and electromagnetic spectrum control (电磁频谱控制).¹⁵



Member of the Strategic Advisory Committee. Member of the Advisory Group of the Ministry of Education Artificial Intelligence Technology Innovation Expert Group. Vice president of Beijing Institute of Technology. Academican of CAS. Director of the Ministry of Education Key Laboratory for High-Reliability Software Technology (高可信软件技术教育部重点实验室). Member of the Implementation Expert Group of the National Science and Technology Major Project for "Core Electronic Components, High-End General-Use Chips, and Foundational Software Products" (国家“核高基”重点科技专项). Member of the Information Technology Domain Expert Group of the 863 Program. Project chief scientist (项目首席科学家) for the 973 Program. Chief of the Ministry of Industry and Information Technology (MIIT) Software and Components Technology

¹⁵ <https://www.cae.cn/cae/html/main/colys/00855664.html> (CAE website) and <http://homepage.hit.edu.cn/lvyueguang> (Harbin Institute of Technology website), accessed April 11, 2020.

<p>Mei Hong (梅宏)</p>	<p>Standards Working Group (信息产业部软件构件技术标准工作组组长). Professor at Peking University, Shanghai Jiao Tong University, and Beijing Institute of Technology. Mei, born 1963, holds bachelor's (1984) and master's (1987) degrees from Nanjing Aeronautical Institute (now Nanjing University of Aeronautics and Astronautics) and a PhD (1992) from Shanghai Jiao Tong University. Mei's research interests include software engineering, system software, software development environments, (distributed) object-oriented technology, and new computer programming languages.¹⁶</p>
 <p>Cao Xuetao (曹雪涛)</p>	<p>Member of the Strategic Advisory Committee. President of Nankai University (since December 2017). Director of the National Key Laboratory of Medical Immunology (医学免疫学国家重点实验室) at PLA Naval Medical University (since October 2006). Director of the Center for Immunotherapy at the Chinese Academy of Medical Sciences (中国医学科学院免疫治疗中心). Cao worked at PLA Second Military Medical University from December 1990 until August 2010, rising to vice president of the university; he was promoted to the professional or technical military rank of major general in June 2005. Former (2011-2017) president of the Chinese Academy of Medical Sciences. Former (2015-2017) president of Peking Union Medical College. Cao became an academican of CAE in December 2005. Cao joined the CPC in January 1985 and was a delegate to the 19th Party Congress. He was also a member of the 12th Chinese People's Political Consultative Conference (CPPCC) and vice chairman of the CPPCC Education, Science, Health, and Sports Committee (教科卫体委员会). Cao holds an MD in clinical medicine (1986) and a PhD in immunology (1990) from Second Military Medical University. His research interests include immunological recognition and adjustment (免疫识别与免疫调节) and applications of immunotherapy to major medical conditions such as tumors.¹⁷</p>

¹⁶ <http://www.sei.pku.edu.cn/about/people/meih> (Peking University website), accessed February 28, 2020, and http://casad.cas.cn/sourcedb_ad_cas/zw2/ysxx/xjjskxb/201112/t20111213_3412393.html (CAS website), accessed April 11, 2020.

¹⁷ <http://graduate.nankai.edu.cn/cxt/list.htm> (Nankai University Chinese website) and <http://www.xuetao.org/class/view?id=10087> (Cao Xuetao's personal English website), accessed April 11, 2020.



Wang Tianran (王天然)

Member of the Strategic Advisory Committee. Director of the State Engineering Research Center for Robot Technology (机器人国家工程研究中心). Honorary chairman of the board of SIASUN Robot & Automation Co., Ltd. (沈阳新松机器人自动化股份有限公司). Wang worked at the Shenyang Institute of Automation of the Chinese Academy of Sciences beginning in 1967, culminating with a stint (1994-2003) as director of the institute. Former member of the Advanced Manufacturing Expert Committee of the 863 Program. Academician of CAE. CPC member. Delegate to the 9th, 10th, and 11th NPCs. Wang, born March 7, 1943, holds a B.S. in computer science (1967) from Harbin Institute of Technology. He was a visiting scholar at Carnegie Mellon University from 1982 to 1985. Wang's research interests include AI, intelligent control, large-scale industrial automation systems, and industrial robots.¹⁸



Lü Jian (Lyu Jian; 吕建)

Member of the Strategic Advisory Committee. Member of the Advisory Group of the Ministry of Education Artificial Intelligence Technology Innovation Expert Group. President of Nanjing University. Academician of CAS. Member of the Standing Committee of the 13th National People's Congress (NPC). Member of the 12th CPPCC National Committee (2013-2018). Lü, born 1960, holds a bachelor's degree (1982) in computer science and a PhD (1988) from Nanjing University. Lü's research interests include software methods, foundational software theories and methods, internetwork methods, and new software platforms and their applications.¹⁹

¹⁸ <https://www.siasun.com/index.php?m=content&c=index&a=lists&catid=224> (Siasun website) and <http://ic.sia.cn/UserFiles/File/Handling%20Editor--Tianran%20WANG-CV.pdf> (Wang's English resume on the Shenyang Institute of Automation website), both accessed April 11, 2020.

¹⁹ <https://www.nju.edu.cn/9133/list.htm> and <https://www.nju.edu.cn/EN/80/49/c7146a163913/page.htm> (Nanjing University Chinese and English websites), accessed April 11, 2020.

 <p>Wu Zhiqiang (吴志强)</p>	<p>Member of the Strategic Advisory Committee. Vice president of, and dean of the College of Architecture and Planning at, Tongji University. Vice president of the China Green Building Council and the Chinese Building Energy Efficiency Council. Wu was chief planner of the Shanghai 2010 World Expo. He has been the chief planner or consultant planner for several major Chinese cities and a project manager for dozens of urban architectural and planning projects, eco-city plans, and green building complexes. Wu became an academician of CAE in 2017. Wu, born August 1, 1960, holds a bachelor's degree in urban planning (1982) and a master's degree (1985) from Tongji University and a PhD in engineering (1994) from the Technical University of Berlin. Wu's research interests include Shanghai's urban spatial development strategy, foreign investment in the Chinese building and construction industry, environmental assessment systems, and sustainable development.²⁰</p>
 <p>Huang Ru (黄如)</p>	<p>Member of the Strategic Advisory Committee. Dean of, and professor in, the School of Electronics Engineering and Computer Science at Peking University. Dean of, and professor in, the Institute of Microelectronics at Peking University. In April 2019, Huang became the first dean of the newly established Academy for Artificial Intelligence (人工智能学院) at Peking University. Huang, born November 1969, holds a B.S. in electrical engineering (1991) and a master's degree (1994) from Southeast University (东南大学), and a PhD (1997) from Peking University. Huang became an academician in the Information Technology and Science Department of CAS in 2015. Her research interests include new semiconductor devices and their applications, nano-scaled complementary metal-oxide-semiconductor (CMOS) devices (纳米尺度器件), new ultra-low-power devices, new devices for neuromorphic computing, emerging memory technology, and device variability and reliability.²¹</p>

²⁰ <http://ysg.ckcest.cn/html/details/8061/index.html> (CAE website) and <https://www.lafargeholcim-foundation.org/experts/zhiqiang-wu> (LafargeHolcim Foundation website), both accessed April 11, 2020.

²¹ http://casad.cas.cn/sourcedb_ad_cas/zw2/ysxx/xxjskxb/201512/t20151224_4502669.html (CAS Chinese website), <https://eecs.pku.edu.cn/info/1041/9103.htm> and <https://eecs.pku.edu.cn/info/1498/6685.htm> (Peking University Chinese and English websites), and <https://www.leiphone.com/news/201904/GhkF7X0RiSGT5Gq3.html> (an April 29, 2019 Chinese article on PRC tech news portal Leiphone), all accessed April 11, 2020.



Liu Ming (刘明)

Member of the Strategic Advisory Committee. Researcher and doctoral adviser at the Institute of Microelectronics of the Chinese Academy of Sciences. Director of the Key Laboratory of Microelectronic Devices and Integrated Technology at the Chinese Academy of Sciences (中国科学院微电子器件与集成技术重点实验室). From January 2018, dean of the School of Microelectronics (国家示范性微电子学院) at University of Science and Technology of China (USTC). Academician of CAS. Chief scientist for projects under the 973 Program. Liu holds bachelor's (1985) and master's (1988) degrees from Hefei University of Technology and a PhD (1998) from Beihang University. She did postdoctoral research at the Institute of Semiconductors at the Chinese Academy of Sciences from 1998 to 1999. Liu's research interests lie in microelectronics science and technology, mainly memory models and mechanisms (存储器模型机理), material structures, core general-purpose technology (核心共性技术), micro- and nano-processing of integrated circuits (集成电路微纳加工), semiconductor nano-materials, microfabrication and nanofabrication, and nano electrical devices.²²



Xu Zongben (徐宗本)

Member of the Strategic Advisory Committee. Deputy director of the Information Technology and Science Department of CAS. Dean of the Xi'an International Academy for Mathematics and Mathematical Technology (西安数学与数学技术研究院) at Xi'an Jiaotong University. Director of the National Engineering Laboratory for Big Data Analytics. Member of the National Big Data Expert Advisory Committee (国家大数据专家咨询委员会). Academician of CAS. Chief scientist for projects under the 973 Program. Zong, born January 1955, holds a bachelor's degree in mathematics (1976) from Northwest University (in China; 西北大学), and a master's degree (1982) and PhD (1987) from Xi'an Jiaotong University. and Zong is an applied mathematician and signal and information processing expert whose research interests include intelligent information processing (智能信息处理), machine learning, basic theory and research on data modeling, neural networks and simulated evolutionary computing (神经网络与模拟演化计算), visual cognition-based data modeling, and data mining.²³

²² <http://people.ucas.edu.cn/~liumingime> and http://english.ime.cas.cn/pe/cm/201601/t20160108_158583.html (CAS Chinese and English websites) and <https://cloud.tencent.com/developer/article/1096590> (April 13, 2018 article on the Tencent Cloud platform), all accessed April 11, 2020.

²³ <http://gr.xjtu.edu.cn/web/zbxucn/2> and <http://gr.xjtu.edu.cn/web/zbxu/2> (Xi'an Jiaotong University Chinese and English websites), accessed April 12, 2020.

 <p>Wu Manqing (吴曼青)</p>	<p>Member of the Strategic Advisory Committee. President of, and deputy secretary of the CPC group (党组) of, China Electronics Technology Group Corporation (CETC). Director of the State Engineering Laboratory for Big Data Applications for Social Safety Risk Perception and Prevention (“社会安全风险感知与防控大数据应用”国家工程实验室).²⁴ Chairman of the Network Information Domain Expert Committee (网络信息领域专家委员会) of the Science and Technology Committee of the CMC. Chief designer of the PLA Comprehensive Electronic Information Systems Top-Level Design and Promotion Project (全军综合电子信息系统顶层设计与推进工程). Chief of the "Space-Earth Integrated Information Network" Expert Group of the S&T Innovation 2030 Major S&T Project (科技创新2030重大科技项目“天地一体化信息网络”专家组). Wu became an academican of CAE in 2009. Wu, born August 29, 1965, holds a master's degree (1990) from National University of Defense Technology. His research interests include digital array radar (DAR) technology, airborne early warning (AEW), and networked information systems.²⁵</p>
 <p>Xu Bo (徐波)</p>	<p>Member of the Strategic Advisory Committee. Deputy director of, member of the CPC committee of, and doctoral adviser at, the Institute of Automation at the Chinese Academy of Sciences (CASIA; 中国科学院自动化研究所). Director of the Digital Content Technology and Services Research Center (数字内容技术与服务研究中心) at CASIA. Former (1998-2008) deputy director of the National Laboratory of Pattern Recognition (模式识别国家重点实验室) under CASIA. In 2008, Xu founded and served as Chinese director (中方院长) of the China-Singapore Digital Media Research Academy (中新数字媒体研究院). Xu has supported numerous projects under the 863 Program, the 973 Program, and the National Natural Science Foundation of China (NSFC) on topics such as Chinese speech recognition, machine translation, and spoken language human-computer interaction. Xu holds a bachelor's degree from the Department of Electrical and Mechanical Engineering at Zhejiang University (1988) and a master's degree (1992) and PhD (1997) from CASIA. Beginning in the mid-1990s, Xu was a pioneer in speech processing and machine translation of spoken Chinese. Xu's current research interests include multilingual speech recognition, machine</p>

²⁴ The State Engineering Laboratory for Big Data Applications for Social Safety Risk Perception and Prevention (社会安全风险感知与防控大数据应用国家工程实验室) was established in July 2017 in Urumqi, Xinjiang. The lab is affiliated with People's Public Security University of China, which is located in Beijing.

²⁵ <https://www.cae.cn/cae/html/main/colys/28404165.html> (CAE Chinese website) and <https://cdf-en.cdrf.org.cn/cdf2019en/qyj/8162.jhtml#content> (China Development Forum English website), both accessed April 12, 2020.

	translation, intelligent processing of multimedia online content, and interactive immersive 3D internet. ²⁶
 <p>Li Bin (李斌)</p>	<p>Member of the Strategic Advisory Committee. Since August 2017, deputy director of, and member of the CPC group of, the Transport Bureau (交通运输部) of the Xinjiang Production and Construction Corps, responsible for party building, ideology, and ethnic unity work. From 2002 to 2017, Li worked at the Research Institute of Highways (公路科学研究院) and the National Intelligent Transport Systems Center of Engineering and Technology (国家智能交通系统工程技术研究中心; 国家ITS中心) under the Ministry of Transport (交通运输部). Li, born January 1973, has a PhD. He is a CPC member.²⁷</p>
 <p>Zhao Chunjiang (赵春江)</p>	<p>Member of the Strategic Advisory Committee. Director of, and lead expert at, the National Engineering Research Center for Information Technology in Agriculture (NERCITA) at Beijing Academy of Agriculture and Forestry Sciences (北京市农林科学院). Director of the Beijing Research Center for Information Technology in Agriculture. Lead expert at the National Engineering Research Center for Intelligent Equipment in Agriculture (国家农业智能装备工程技术研究中心). Director of the Key Laboratory for Information Technology in Agriculture (农业信息技术综合性重点实验室) at the Ministry of Agriculture. Director of the National Engineering Laboratory for Agricultural Product Quality and Safety Tracking Technology and Applications (农产品质量安全追溯技术及应用国家工程实验室). Zhao has served as an agricultural technology expert for projects under the 863 Program. He became an academician of CAE in 2017. Zhao, born April 28, 1964, holds a B.S in agronomy (1985) from Hebei Agricultural University, an M.S. in agricultural engineering (1988) from Beijing Academy of Agriculture and Forestry Sciences, and a PhD in agricultural engineering (1991) from Beijing Agricultural University (now China Agricultural University). His research interests include agricultural information technology, precision</p>

²⁶ <http://people.ucas.ac.cn/~xubo> (University of Chinese Academy of Sciences website), accessed April 12, 2020.

²⁷ <http://jtj.xjbt.gov.cn/c/2019-06-01/4672631.shtml> (website of the Transport Bureau of the Xinjiang Production and Construction Corps), accessed April 12, 2020.

	<p>agriculture, agricultural computer networks and datasets, and expert systems for intelligentized (智能化) agriculture.²⁸</p>
 <p>Liu Zhong (刘忠)</p>	<p>Member of the Strategic Advisory Committee. Professor and chief engineer in the School of Information Systems and Management at National University of Defense Technology. Beginning in 1990, Liu was an instructor at Changsha Artillery Academy (长沙炮兵学院). His father was an instructor at a military school and researched and designed rocket artillery (火箭炮) simulation systems. Liu, born around 1970, holds a bachelor's degree in physics (1990) from Central China Normal University and a master's degree in computer systems and software (1994) and a PhD in control systems (1997) from National University of Defense Technology. His two mentors were mathematical tactics (数理战术学) expert Sha Jichang (沙基昌) and systems planning and management decision-making expert Zhang Weiming (张维明). Liu was a visiting scholar at the University of Portsmouth in the United Kingdom from 2005 to 2006. His research interest is command and control systems.²⁹</p>
 <p>Xue Lan (薛澜)</p>	<p>Member of the Strategic Advisory Committee. Professor at Tsinghua University (since 1996). Director of the Schwarzman Scholars program at, deputy dean of the China Research Academy for Engineering, Science, and Technology Development Strategy (中国工程科技战略研究院) at, and director of the China Institute for Science and Technology Policy at, Tsinghua University. Non-permanent senior researcher (非常任高级研究员) at the Brookings Institution. Xue holds a bachelor's degree (1982) from Changchun Institute of Optical Precision Machinery (长春光学精密机械学院; now Changchun University of Science and Technology). From 1985 to 1991, Xue studied in the United States, earning master's degrees in technical systems management and public policy and management from Stony Brook University and a PhD in engineering and public policy from Carnegie Mellon University. From 1991 to 1996, Xue taught at the George Washington University. His research interests include public policy and management, S&T policy and innovation management, crisis management, and global governance. In 2003 and 2011, Xue gave lectures on Chinese S&T policy and</p>



²⁸ <https://www.cae.cn/cae/html/main/colys/35503651.html> (CAE Chinese website), <http://www.nercita.org.cn/centerInfo/leaderDetail?id=1> (NERCITA Chinese website), and https://www.ispag.org/media/Resume%20of%20Prof_%20Zhao%20Chunjiang.pdf (Zhao's English resume), all accessed April 12, 2020.

²⁹ <http://www.chinanews.com/mil/2015/12-28/7691788.shtml> (a December 28, 2015 article about Liu Zhong by PRC state news agency China News Service) and http://81.cn/20151z/2015-12/29/content_6834057.htm (a December 29, 2015 article about Liu in official PLA online portal China Military), both accessed April 12, 2020.

	<p>strategic emerging industries at CPC Politburo collective study sessions.³⁰</p>
 <p>Min Wanli (闵万里)</p>	<p>Member of the Strategic Advisory Committee. Formerly (2013-2019) worked for Alibaba in Hangzhou, China as a data scientist, machine intelligence scientist, and finally as chief scientist for AI and vice president of Alibaba Cloud. Founder and CEO (since July 2019) of North Summit Capital (北高峰资本) in Shenzhen, China. From 2004 to 2010, Min worked as a researcher at IBM in New York; he worked as a researcher at IBM in Singapore from 2010 to 2012. From 2012 to 2013, he worked as a senior statistician for Google. Min holds a bachelor's degree in physics (1997) from University of Science and Technology of China (USTC) and a PhD in statistics (2004) from the University of Chicago. His research interests are big data and cloud computing.³¹</p>
 <p>Wang Haifeng (王海峰)</p>	<p>Member of the Strategic Advisory Committee. Member of the Advisory Group of the Ministry of Education Artificial Intelligence Technology Innovation Expert Group. Chief Technology Officer at Baidu. Senior vice president and head of the Baidu AI Technology Platform System. President of the National Engineering Laboratory for Deep Learning Technology and Applications. Adjunct professor at Harbin Institute of Technology. Former president (2013) of the Association for Computational Linguistics (ACL). Deputy director, head of the Research Department, and head researcher at Toshiba (China) R&D Center (2002-2010). Researcher at iSilk.com in Hong Kong (2000-2002). Assistant researcher at Microsoft Research Asia (1999-2000). Wang holds bachelor's (1993), master's (1996), and PhD (1999) degrees in computer science from Harbin Institute of Technology. His academic mentors were Chinese-to-English machine translation expert Li Sheng (李生) and natural language understanding and AI applications expert Zhao Tiejun (赵铁军). Wang's research</p>

³⁰ <http://www.ccg.org.cn/Expert/Eview.aspx?id=635> (Center for China & Globalization Chinese website), and <http://www.sppm.tsinghua.edu.cn/szdw/qzjs/26efe4891e2a9c84011e39242eb2002f.html> and <http://www.sppm.tsinghua.edu.cn/english/FacultyAndStaff/FullTimeFaculty/F/26efe48f3a952f22013aaa9cc0860016.html> (Tsinghua University Chinese and English websites), all accessed April 12, 2020.

³¹ <https://www.linkedin.com/in/wanli-min-1869753/?originalSubdomain=cn> (Min Wanli's English LinkedIn profile) and <http://baike.chinaso.com/wiki/doc-view-335778.html> (a Chinese wiki entry on Min on PRC official media portal chinaso.com), both accessed April 12, 2020.

	<p>interests include machine translation, natural language processing (NLP), and information retrieval.³²</p>
 <p>Yao Xing (Forrest Yao; 姚星)</p>	<p>Member of the Strategic Advisory Committee. Vice president of Tencent, and director of Tencent's Artificial Intelligence Lab. He has worked at Tencent since September 2004. Yao's research interests include AI fields such as computer vision, speech recognition, natural language processing, and machine learning.³³</p>
 <p>Hu Yu (胡郁)</p>	<p>Member of the Strategic Advisory Committee. Senior vice president of iFlytek (科大讯飞) since June 2009, responsible for the company's core intelligent speech and language technologies, such as speech synthesis, speech recognition, speech analysis, speech evaluation (语音评测), and natural language understanding. Hu was one of the co-founders of iFlytek in 1999. Since September 2018, independent board member of Baishan Cloud (白山云科技). Executive director of the National Engineering Laboratory for Speech and Language Information Processing. Adjunct professor and doctoral adviser at University of Science and Technology of China (USTC). Lead expert for key AI projects under the 863 Program. Hu, born May 1978, holds a PhD in signal and information processing from USTC.³⁴</p>

³² http://ir.hit.edu.cn/~wanghaifeng/whf_cn.htm (Harbin Institute of Technology Chinese website), accessed April 12, 2020, and <http://research.baidu.com/People/index-view?id=116> (Baidu Research English website), accessed February 29, 2020.

³³ <https://www.linkedin.com/in/%E6%98%9F-%E5%A7%9A-12b75b96/?originalSubdomain=cn> (Yao Xing's Chinese LinkedIn profile), <http://tech.sina.com.cn/csj/2017-12-18/doc-ifyptkyk5051791.shtml> (a December 18, 2017 Chinese interview of Yao on popular PRC web portal Sina.com), and en.ii-robot.com/news/show.php?itemid=1645 (the text of an English TedX talk by Yao posted to the International Intelligent Robot Industrial Platform website), all accessed April 13, 2020.

³⁴ <https://www.svief.org/2015/speaker/bio/Yuhu.html> (Chinese profile on the Silicon Valley Innovation and Entrepreneurship Forum [SVIEF] website), accessed April 13, 2020.



Yu Kai (余凯)

Member of the Strategic Advisory Committee. Founder and (since July 2015) CEO of Horizon Robotics (地平线机器人). Independent board member of Ecovacs (科沃斯机器人), a Chinese service robot company. Summer intern at Microsoft Research Asia from August to September 2002. Senior research scientist at Siemens China Research Academy (西门子中国研究院) from January 2004 to August 2006. Research staff member at, and later head of the Department of Media Analytics at, NEC Laboratories America from September 2006 to March 2012. Deputy managing director of Baidu Research (百度研究院), founder of Baidu's Institute of Deep Learning (深度学习研究院), and director of Baidu Image Search from January 2013 to June 2015. Yu, born November 1976, holds bachelor's (1998) and master's (2000) degrees from the Department of Electrical Science and Engineering at Nanjing University, and a PhD (2007) from the Department of Computer Science at the University of Munich. He underwent Dale Carnegie Training in 2008. Yu was a visiting professor at Stanford University from January to December 2011 and taught "Introduction to Artificial Intelligence." Yu is a Chinese national and also a U.S. permanent resident. Yu's research interests include machine learning, algorithms, data mining, motion capture, computer vision, and image processing.³⁵

³⁵ <https://www.linkedin.com/in/kai-yu-10b60b3/> (Yu Kai's English LinkedIn account) and https://vip.stock.finance.sina.com.cn/corp/view/vCI_CorpManagerInfo.php?stockid=603486&Name=%D3%E0%BF%AD (Sina Finance page for Ecovacs), accessed April 13, 2020.