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Research and Practice of Smart Campus in Chinese Universities



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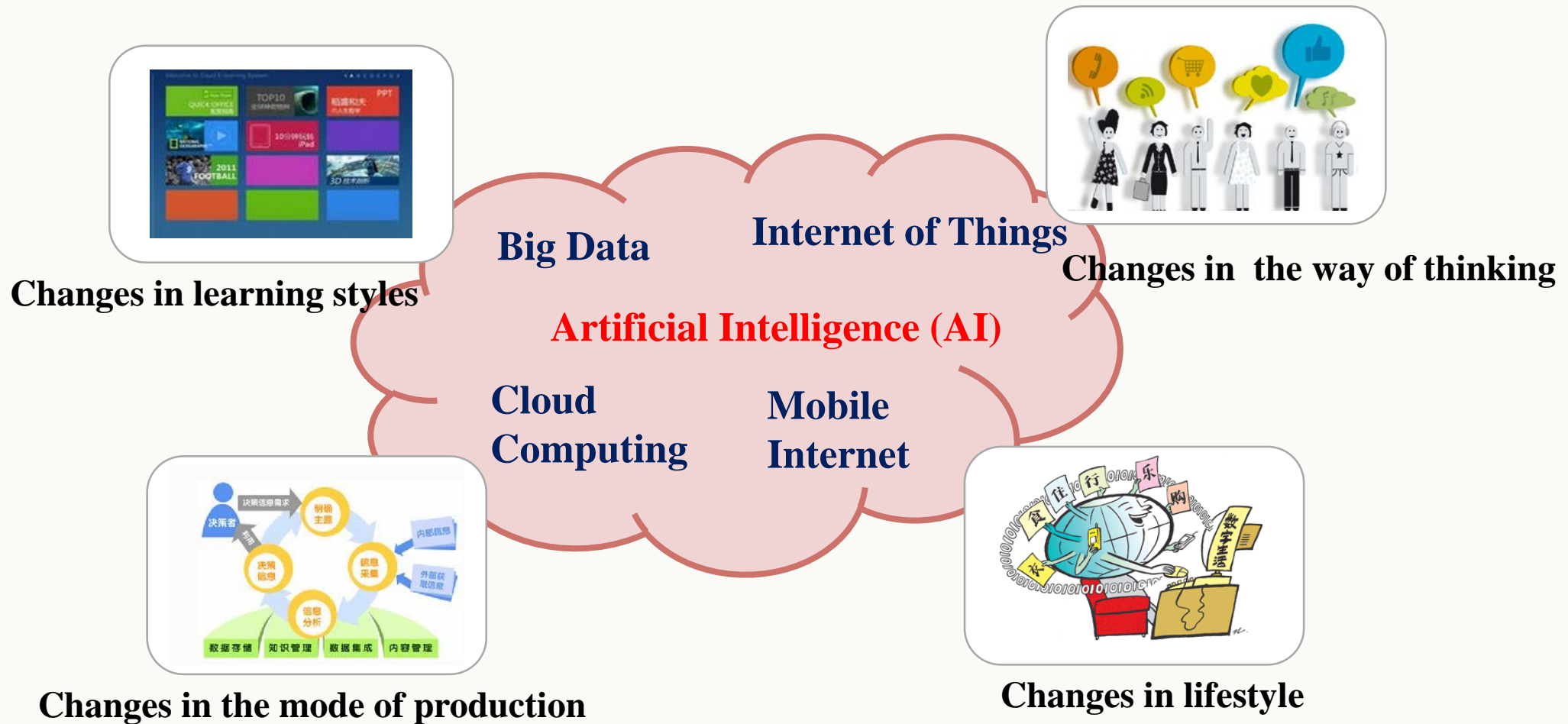
PART

**The Development of
Information
Technology**

ONE

Background

The new generation of information technology is changing people's thinking, production, life and learning, and profoundly affecting the development of the world.





"INTERNET+"

A Term with Chinese Characteristics:

"Internet +" is based on the Internet platform which promotes industrial transformation and upgrading and creates **new products, new businesses and new models** continuously by the use of information and communication technology and **cross-industry integration**, and to build a new ecology that connects everything.

The Essence of "Internet +":

It is a disruptive restructuring and reform of the traditional industry that based on the concept of the Internet.



Big Data in education



**Analysis of
Study**

**Analysis of
Correlation**



**Aid to Decision
Making**

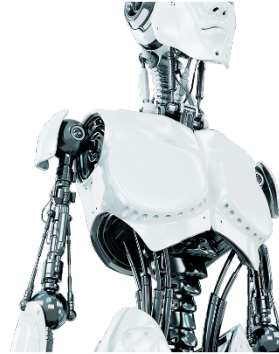
Virtual Reality



Artificial Intelligence (AI)

Issued by the Central
Government
[2017] No. 35:

New Generation
Artificial Intelligence
Development Plan (July
8th, 2017)



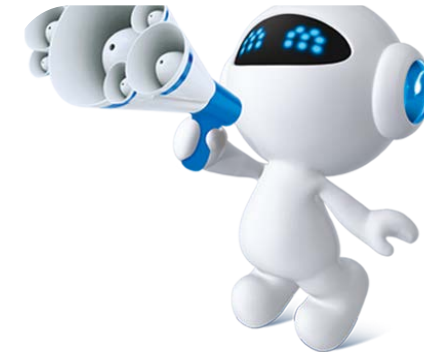
Alpha Dog



Driverless Car

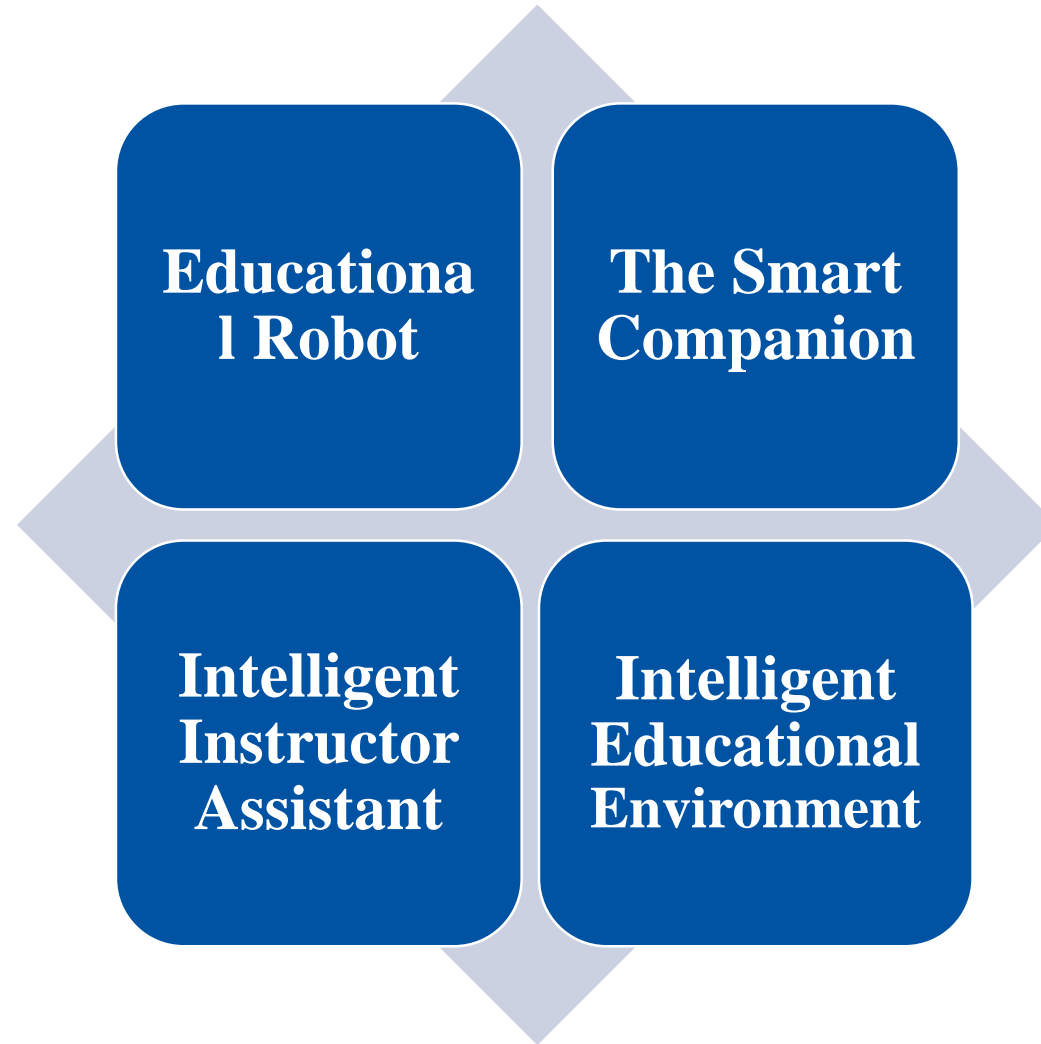


Translating
Software/Equipment



The Robot

The Application of Artificial Intelligence in Education



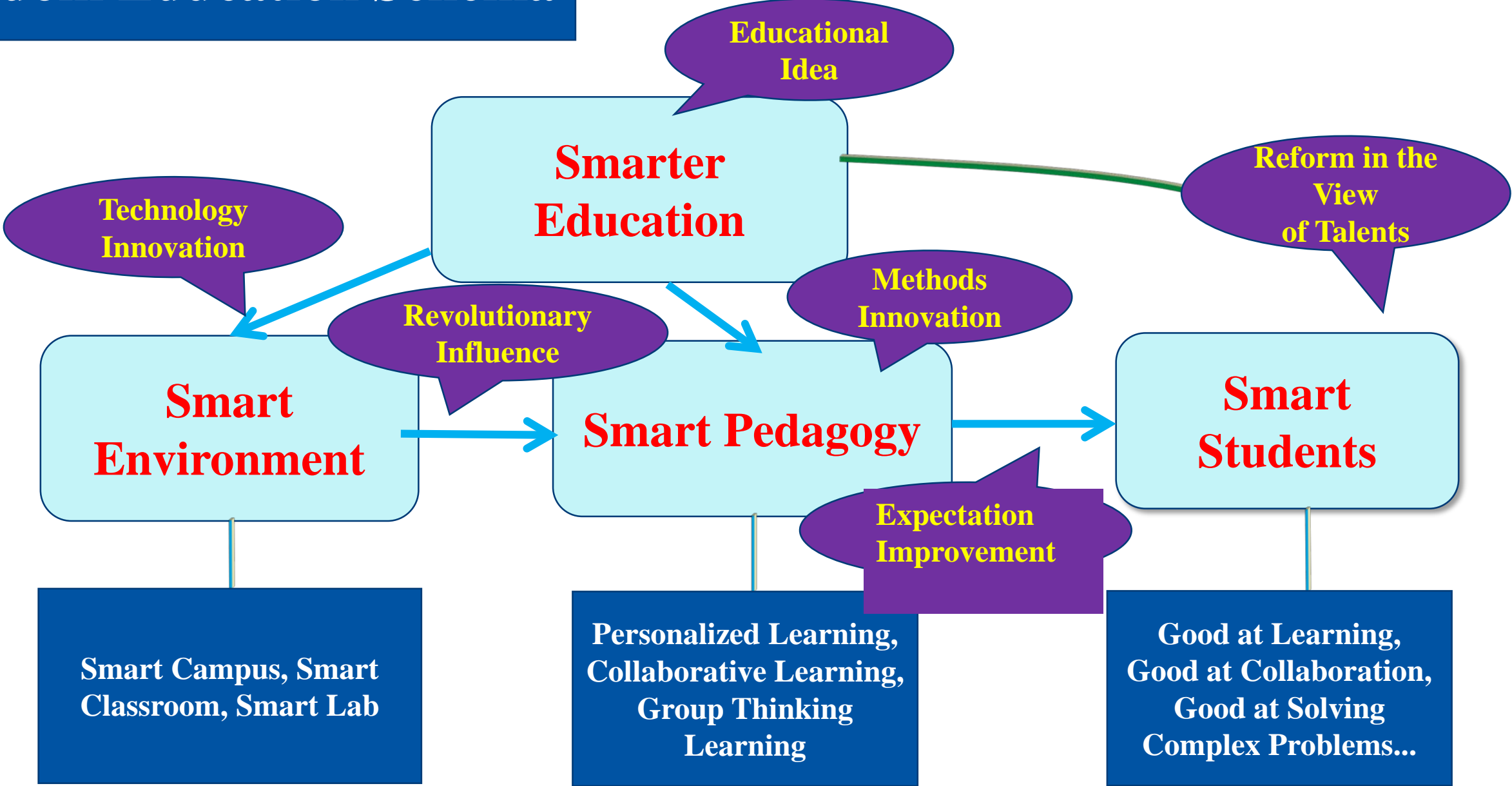
PART

**Research of Smart
Campus**

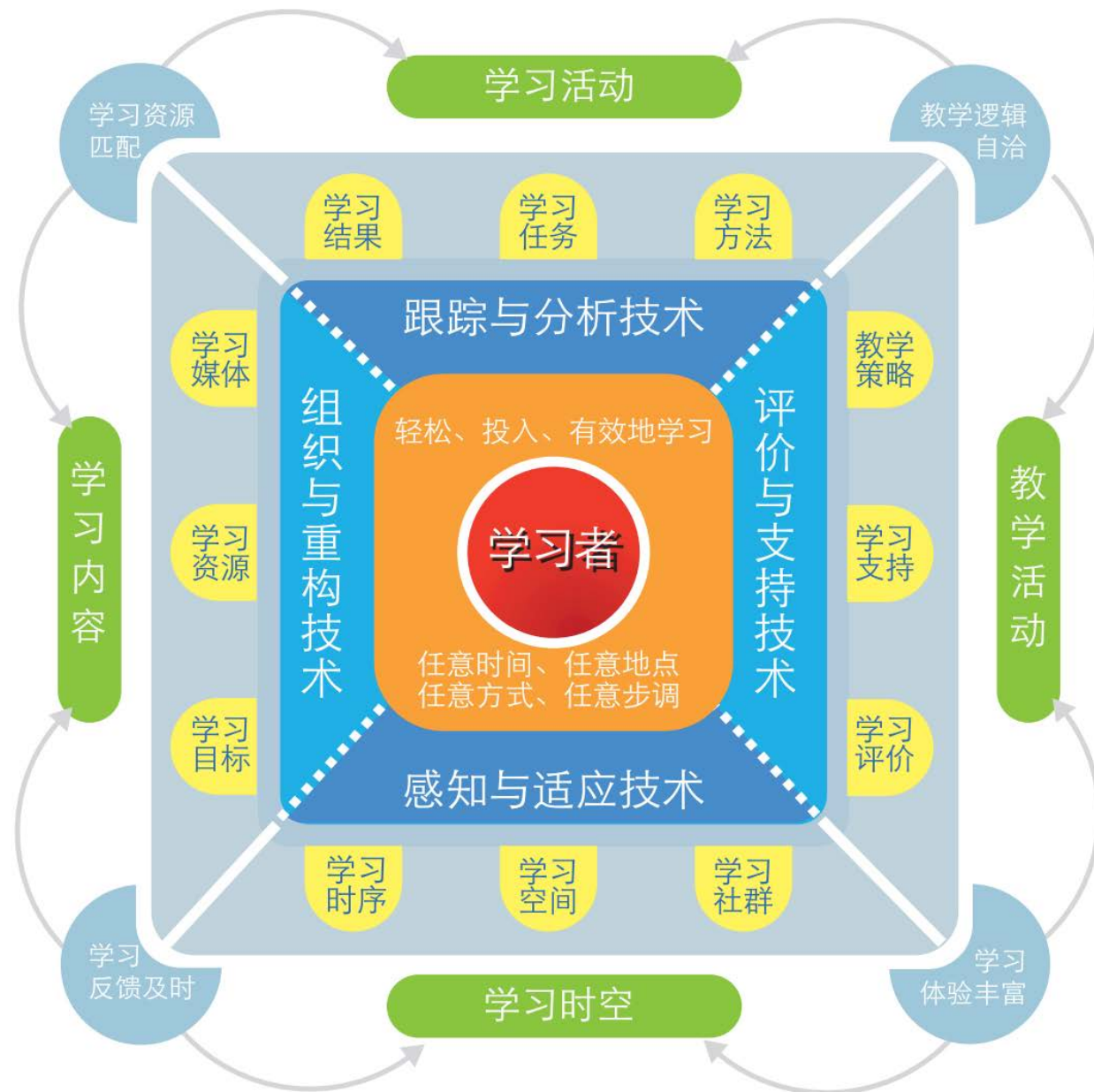
TWO

Wisdom Education Schema

Zhiting Zhu, 2012



Smart Learning Environment Framework



Definition of Smart Campus in Universities



Smart campus is the advanced form of university informatization, which is the further expansion and improvement of digital campus. It makes comprehensive use of emerging information technologies such as cloud computing, Internet of things, mobile Internet, big data, intelligent perception, business intelligence, knowledge management and social network. Comprehensive perception of the campus physical environment, intelligent identification of teachers and students in the study, work situation and their individual characteristics ; and connect the physical space and digital space of the school organically to establish an intelligent and open teaching environment and a convenient and comfortable living environment for teachers and students; Change the way of interaction among teachers, students and school resources and environment, thus realize the people-oriented personalized innovation service, and support schools to carry out wisdom education.

--"Research on smart campus service framework and service standards"

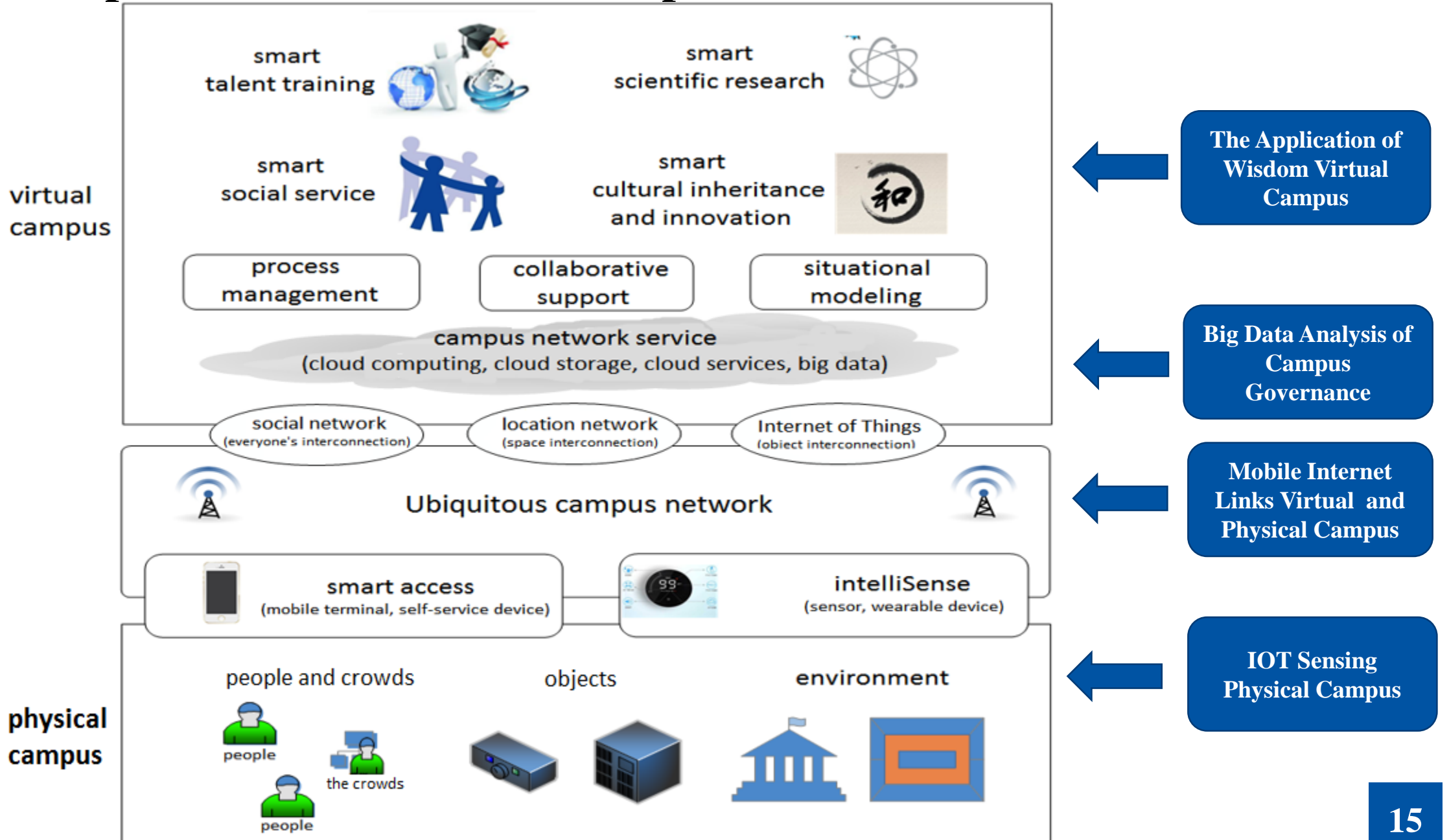
-- Smart campus working group, education informatization branch, Chinese association of higher education (2015)

Elements of the Concept of Smart Campus

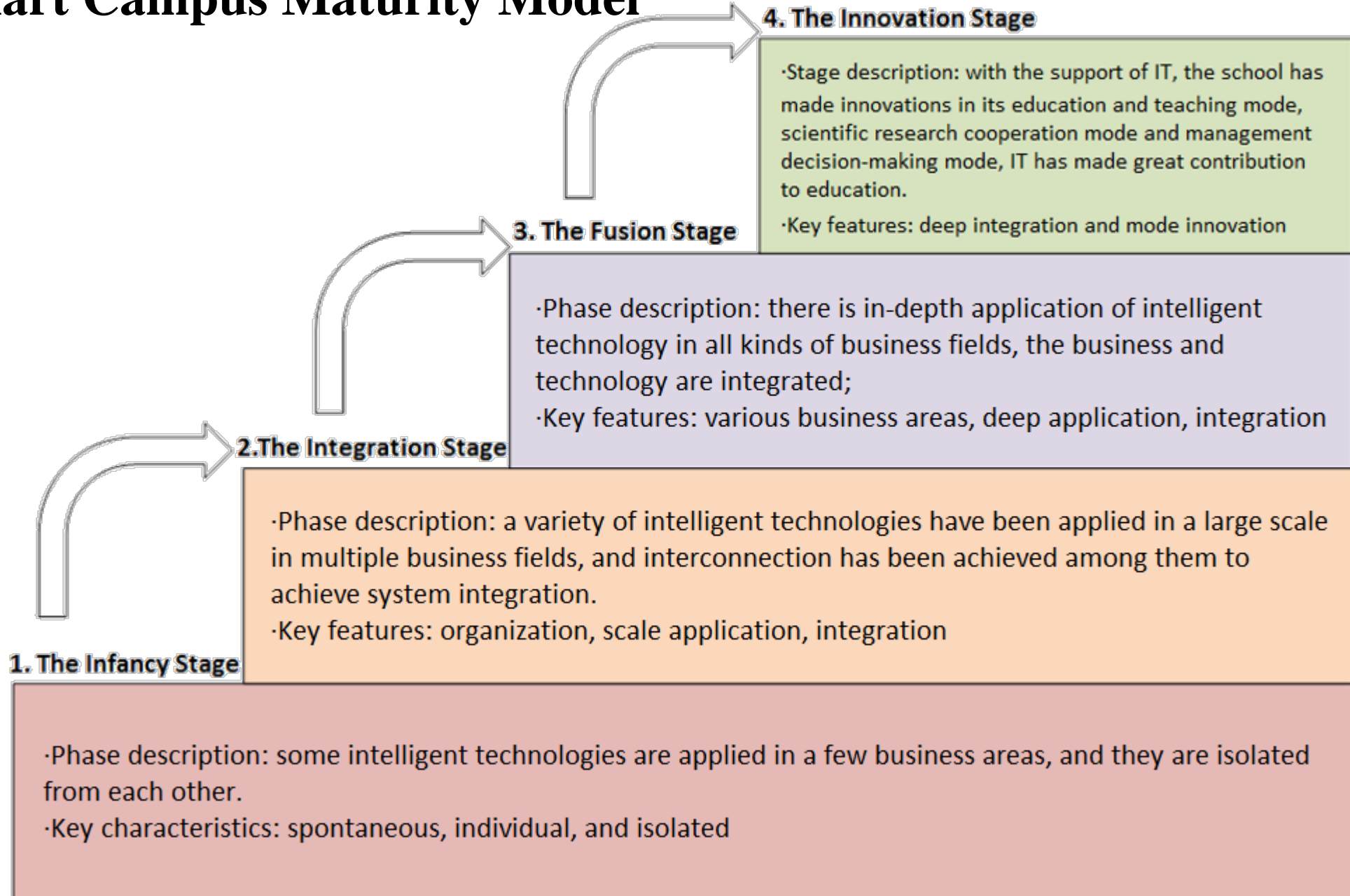
- It is the upgrade of digital campus
- Comprehensive use of emerging information technology
- Perceive the physical environment and identify the campus scene
- Connect physical space and digital space
- People-oriented services
- Support schools to carry out wisdom education



Conceptual Model of Smart Campus in Universities



Smart Campus Maturity Model



The Essential Requirement of Smart Campus in Universities

Teachers, students, administrators, service staff are convenient to access to information services

User Convenience-oriented

One-stop service, ubiquitous service

To Assist Teaching Reform

Information technology is integrated into subject teaching

Inquiry learning, Cooperative learning, Blended learning, Ubiquitous learning, Study analysis

The collaborative research, Scientific research, Database, Cross-regional team, Virtual simulation, High performance computing

To Assist Scientific Research

Scientific research supported by information technology

To Assist Management

Refactor the management service process with information technology

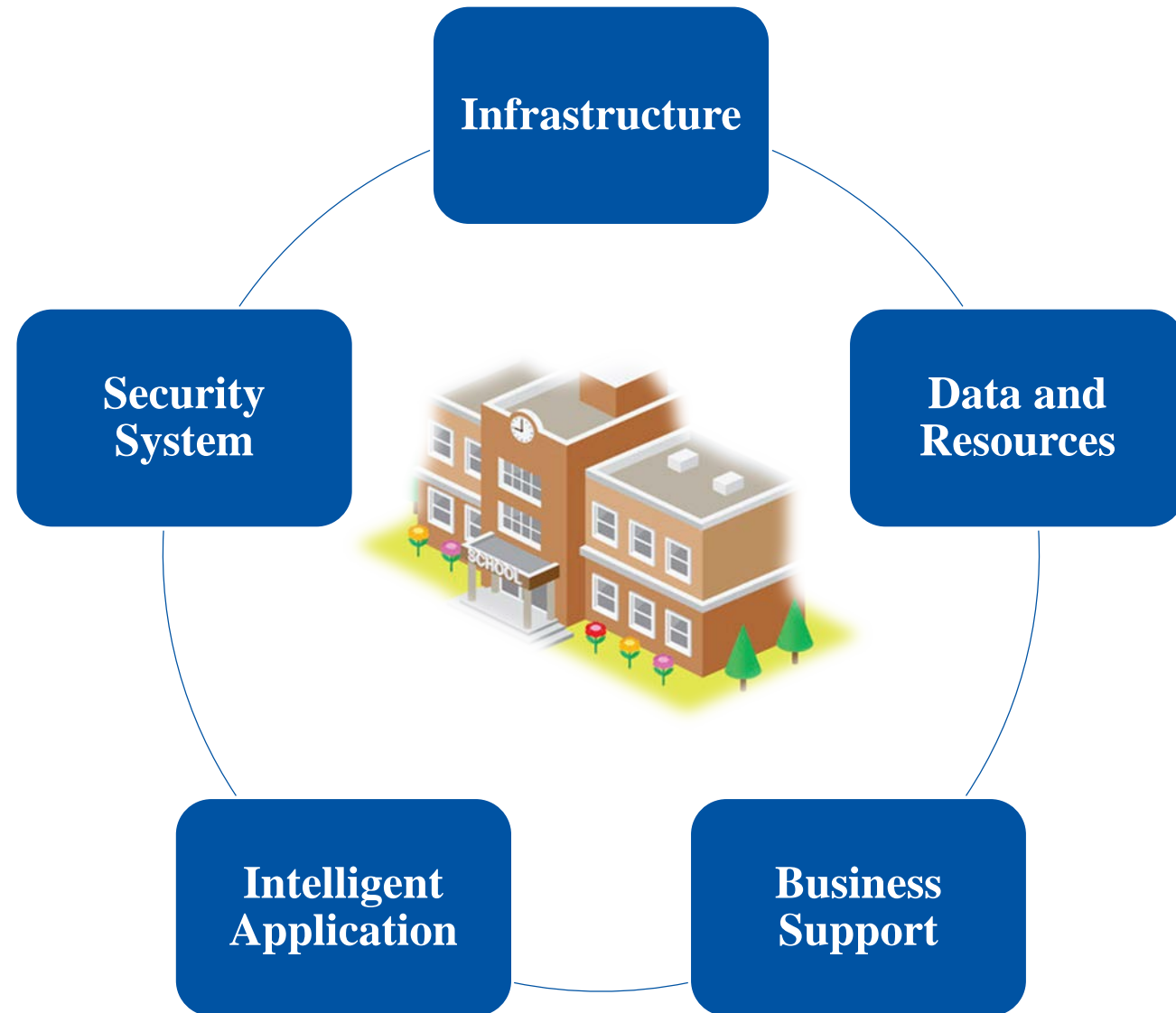
Decision support, Efficiency improvement, Big data analysis, Personalized service

Features of Smart Campus

Comprehensive Perception of Environment	first, sensors can perceive, capture and transmit information about people, equipment and resources anytime and anywhere;second, it can percept, capture and transmit learners' individual characteristics and learning situation.
Seamless Network Connectivity	smart campus supports the connection of all the software systems and hardware devices, and transmit the perceived information in real time, which is the basis for collaborative learning and collaborative work of users.
Big Data Support	building models, establishing prediction methods and conducting trend analysis on the basis of big data; At the same time, it integrates data, information and rules of various aspects to make quick response and active response through intelligent reasoning.
Open Learning Environment	expanding the resource environment, to make student's learning beyond textbooks; supporting the expansion of practice environment, so that learning can be happened both in-class and after-class; supporting the expansion of the space environment, thus effective learning can be realized in real and virtual situations.
Personalized Service for Teachers and Students	based on the concept of personalized service, the application of key technologies is aimed at effectively solving the practical needs of teachers and students in campus life, study and work, and to become an indispensable part of real life.

**Planning and
Design of Smart
Campus**

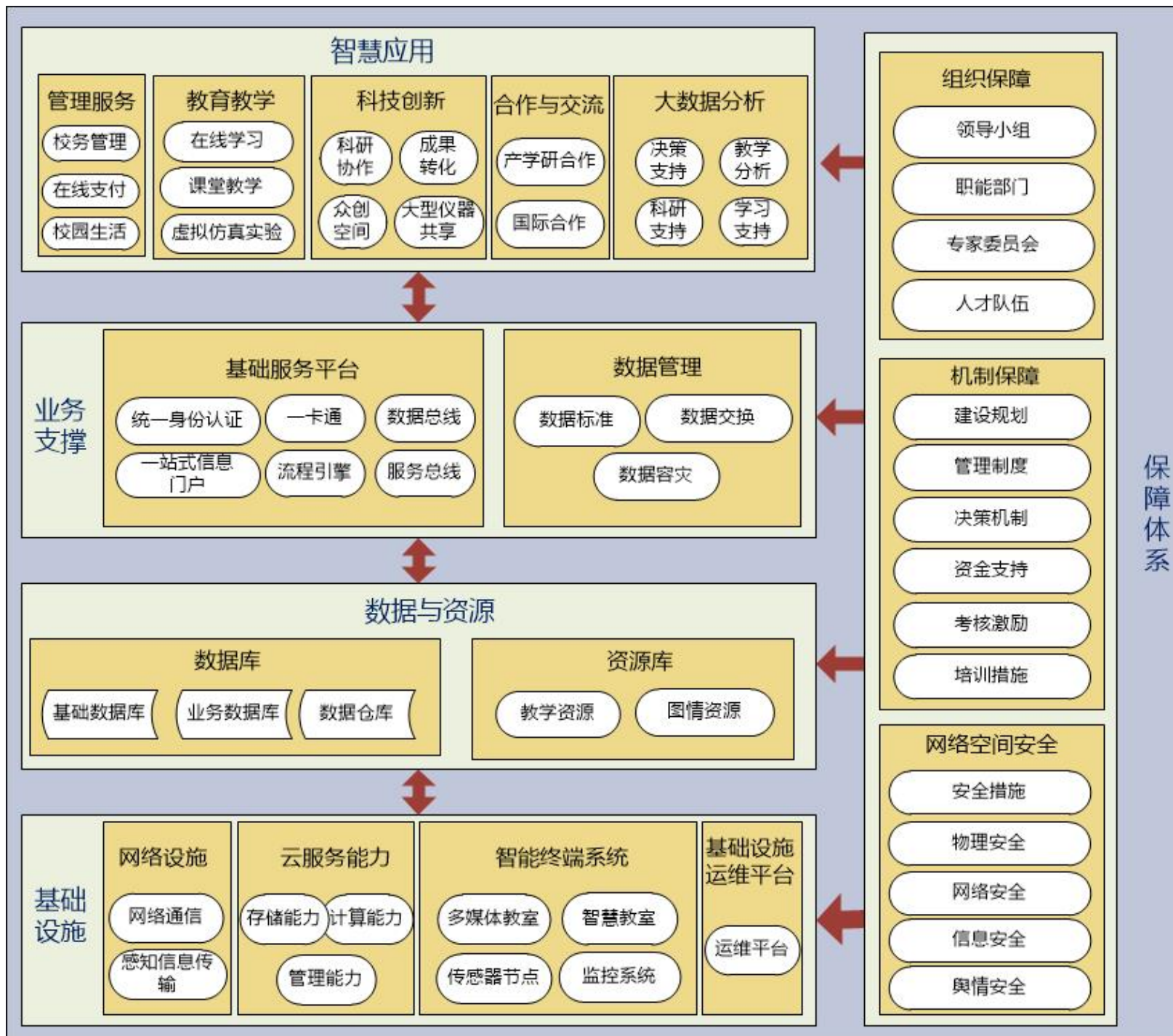
Smart Campus Construction Guide in Chongqing Province





Chongqing

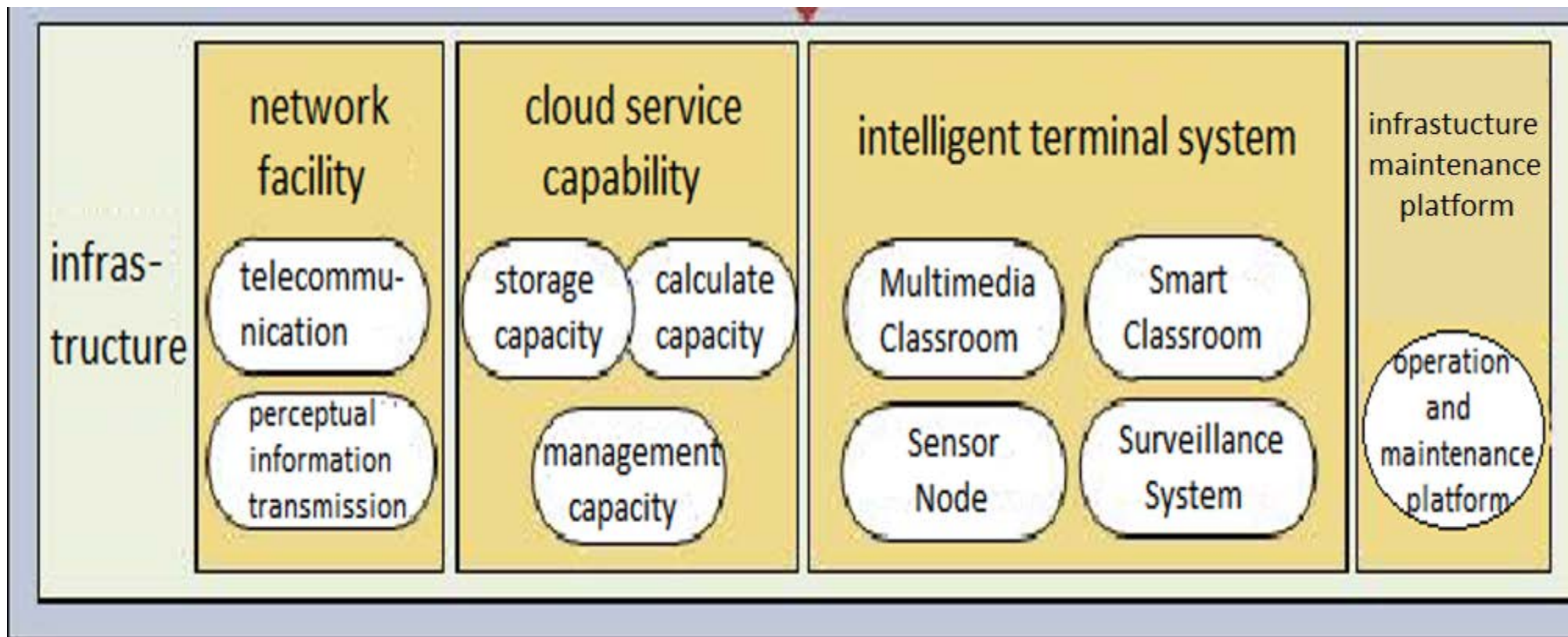
Guide to the Construction of Smart Campus of Higher Education





Chongqing

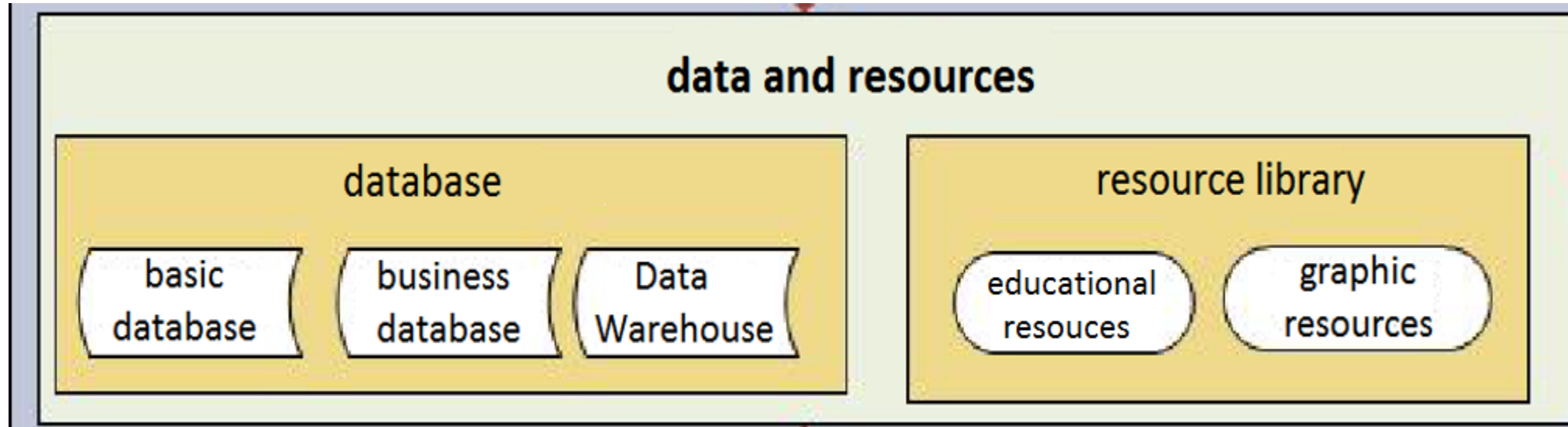
Guide to the Construction of Smart Campus of Higher Education





Chongqing

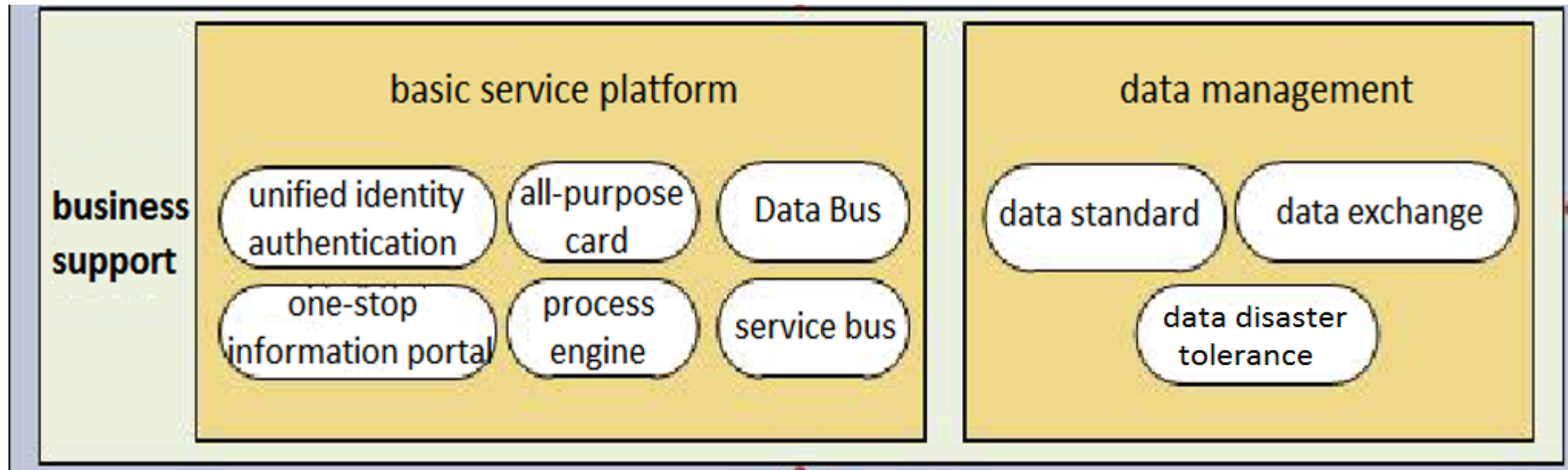
Guide to the
Construction
of Smart
Campus of
Higher
Education





Chongqing

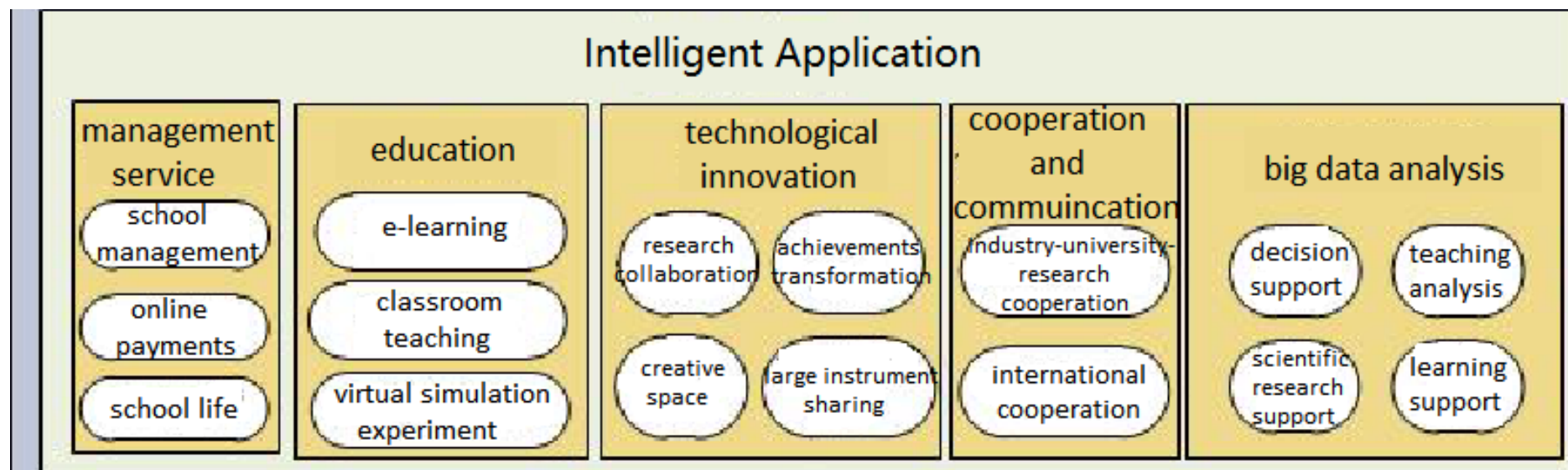
Guide to the Construction of Smart Campus of Higher Education





Chongqing

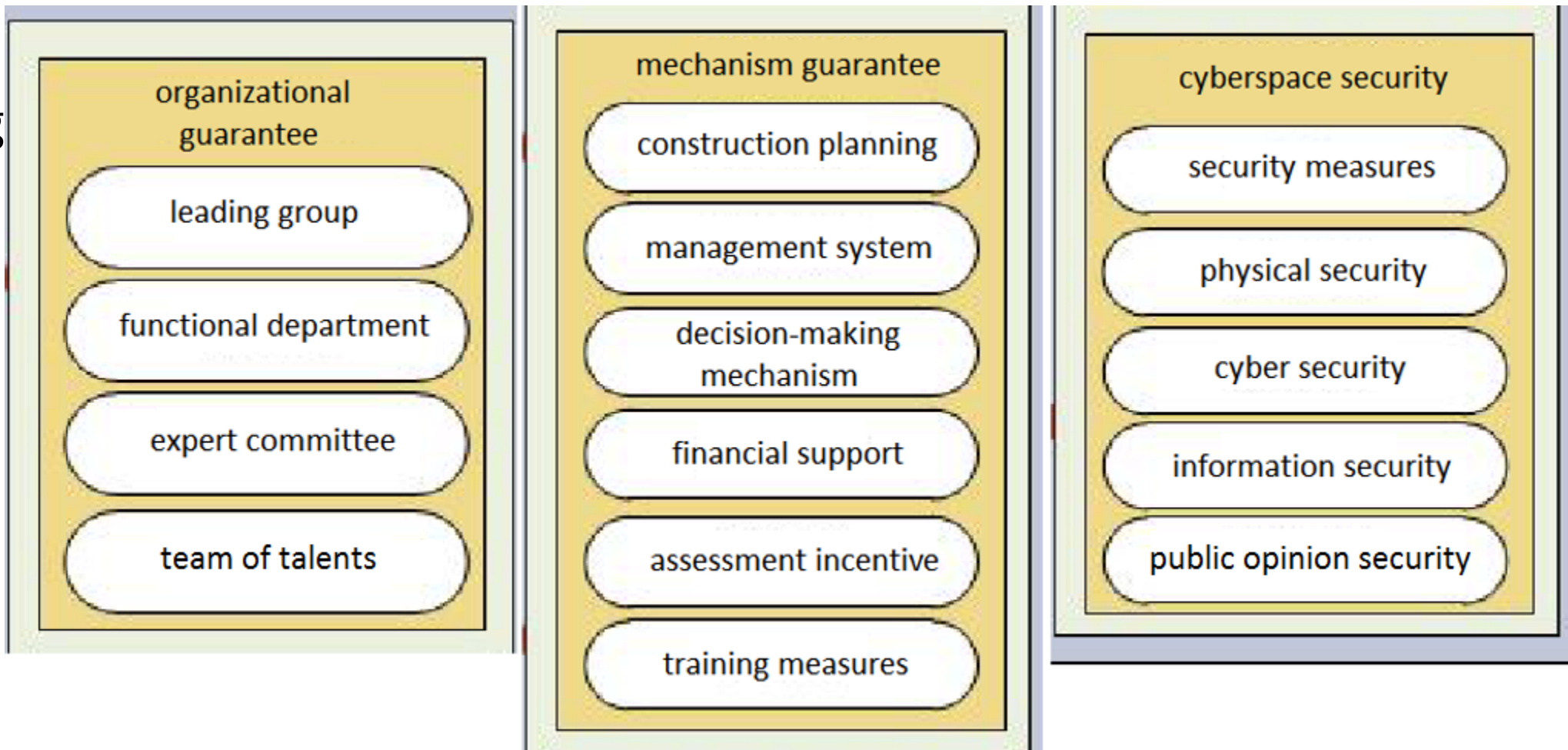
Guide to the Construction of Smart Campus of Higher Education





Chongqing

Guide to the Construction of Smart Campus of Higher Education



Security System

**Practice of
Smart Campus**



In April 2018, the Ministry of Education of China released the document " Action Plan on Artificial Intelligence Innovation in Higher Education ".



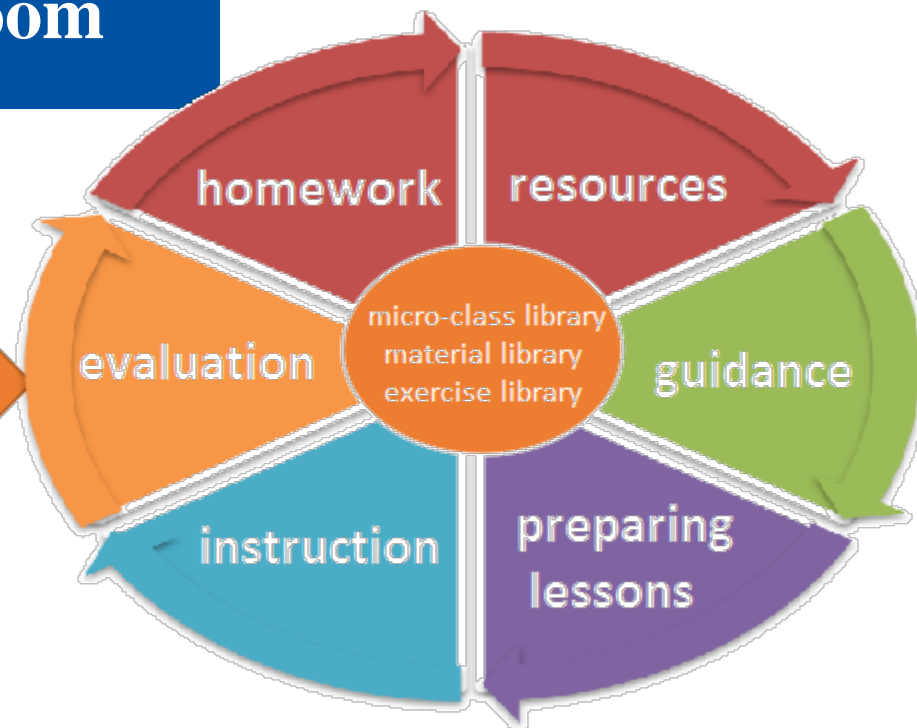
"Promoting the Development of Intelligent Education"



- To promote the school education teaching reform, and develop into smart campus on the basis of digital campus;
- To construct a technology-enabled teaching environment and explore a new teaching mode based on artificial intelligence;
- To use artificial intelligence and big data to carry out teaching process monitoring, learning situation analysis and academic performance diagnosis;
- To support schools in transforming their organizational structures and management systems through the application of artificial intelligence technologies, so as to realize fine management and personalized services on campus and comprehensively improve school governance.

Intelligent Teaching - Interactive Classroom

Run through the whole teaching process before, during and after class



Before Class



备资源



备导学



备课件



备习题

During Class



多媒体授课



随堂检测



课堂互动



课堂实录

After Class



通知作业



音频作业



图片作业



视频作业

教学一体机

电子书包

录播系统

备课系统

作业考试

阅卷系统

更多智能教具...

Intelligent Teaching -- Subject Classroom



Geography Classroom



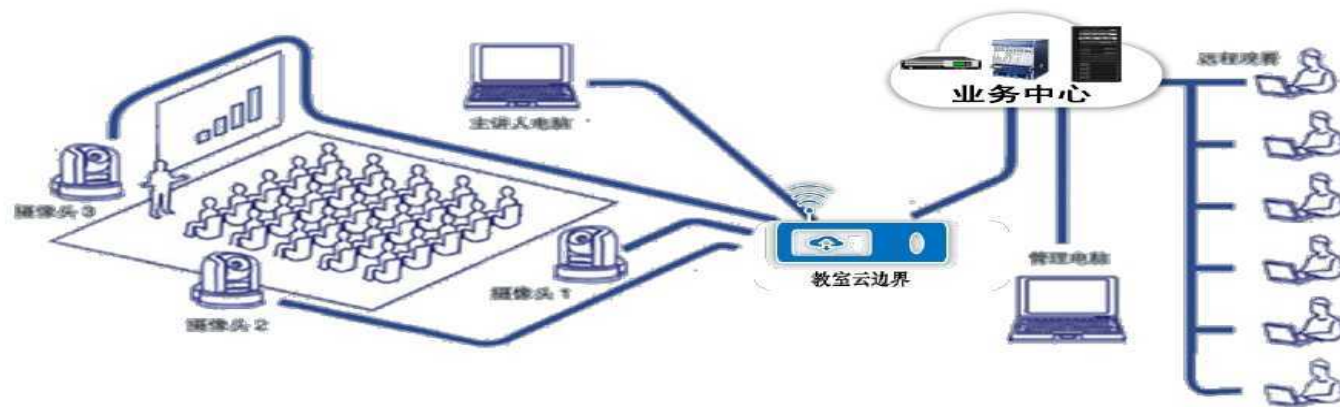
Mathematical Study Laboratory



Science Classroom

Intelligent Teaching -- Micro-course Recording and Broadcasting System

Fully automatic recording and broadcasting courses, and synchronous upload and save in the cloud classroom center.



Recorded Classroom

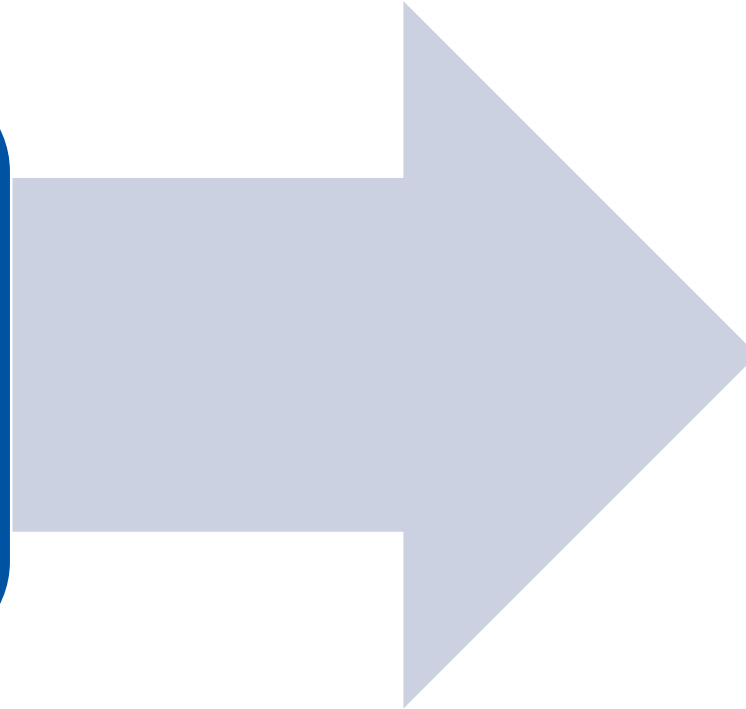


Micro-course Pen



Quality Recording Studio

The Case of Smart Campus Administration





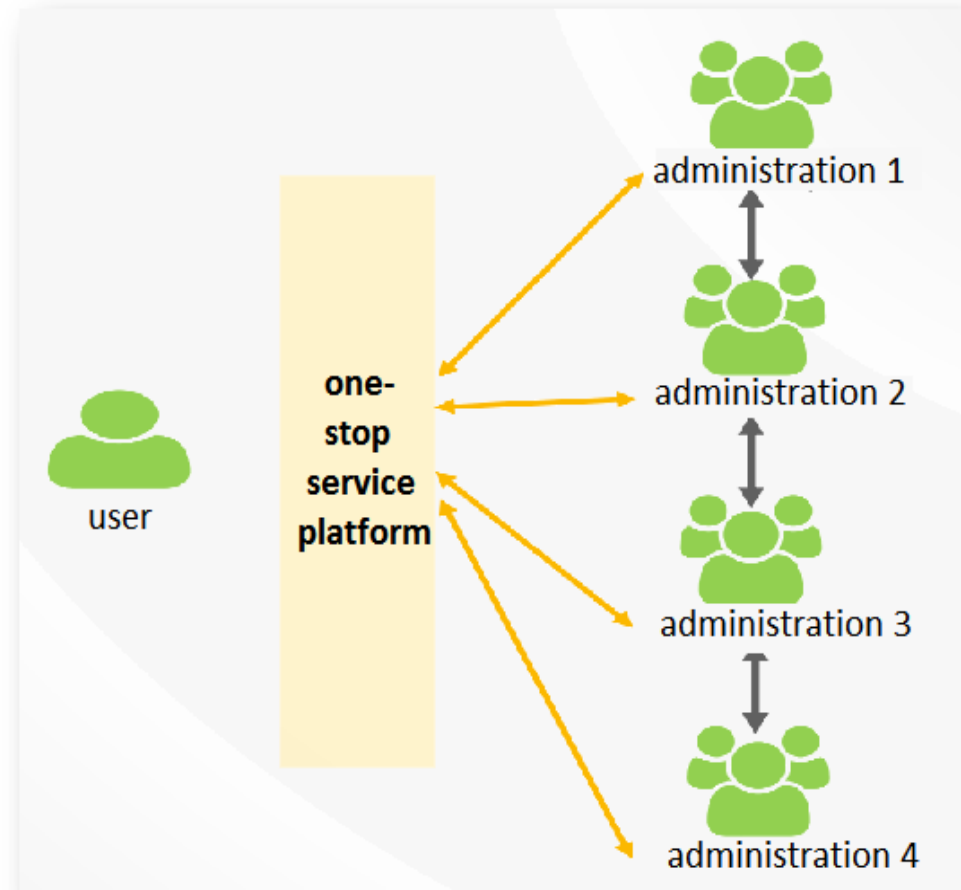
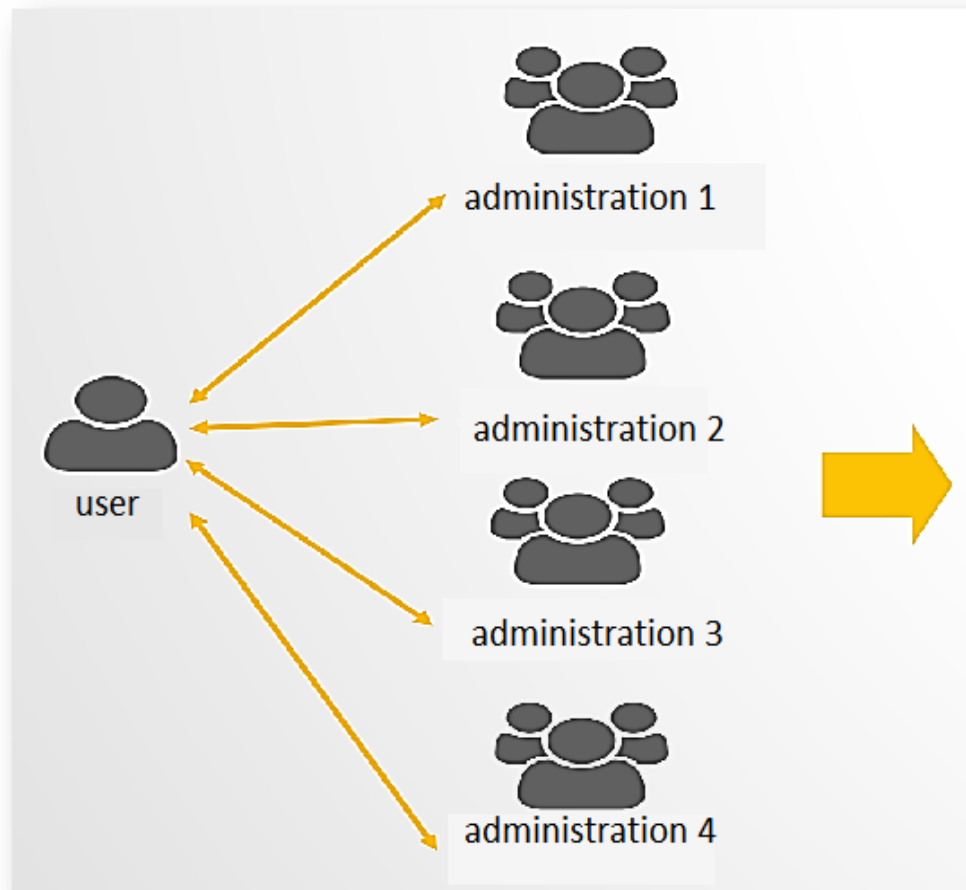
The Concept of Southwest University

**Fine
Management**

**Personalized
Service**

**Informatization
Support**

From “Multiple Management” to “One-stop Service”



One-stop Service Portal, Southwest University

The dashboard features a top navigation bar with the university logo, '一站式服务门户' (One-stop Service Portal), and links for '首页' (Home), '我的应用' (My Applications), and '公告新闻' (Announcements). On the right, there are links for '系统消息' (System Messages), '意见反馈' (Feedback), '帮助' (Help), and '退出' (Logout).

The main content area is divided into three sections:

- User Profile:** Shows the current date as Friday, 2019-3-15, and the user's name '刘革平' (Liu Geiping) from the '教育学部' (Department of Education). It also displays the location '重庆北碚' (Chongqing Beibei) with a temperature of 11-14°C, the last login time '2019-03-14 19:29:28', and a '修改密码' (Change Password) button.
- 业务系统导航 (Business System Navigation):** A grid of icons for various systems including '邮件系统' (Email), '办公系统' (Office), '党务工作' (Party Work), '教务系统' (Teaching), '人事人才' (HR), '科研系统' (Research), '财务平台' (Finance), '研究生MIS系统' (Graduate MIS), '国资系统' (State Assets), '大型设备共享' (Large Equipment Sharing), '学生平台' (Student Platform), '少数民族系统' (Minority System), '网络教学平台' (Network Teaching Platform), '我的图书馆' (My Library), and '樟树林论坛' (Zhangshulin Forum).
- 我的应用 (My Applications):** A grid of application cards. The '应用类别' (Application Category) is set to '默认' (Default). The '应用列表' (Application List) is sorted by '字母顺序' (Alphabetical Order). Applications include '合同报备' (Contract Reporting), '临时车辆通行权限申请' (Temporary Vehicle Access Application), '后勤-维修服务中心' (Logistics-Maintenance Service Center), '“一站式”服务流程征集' (One-stop Service Process Collection), '后勤-运驾服务中心' (Logistics-Transportation Service Center), '首次申请研究生指导教师岗位平台' (First-time Application for Graduate Supervisor Position Platform), '后勤-宿舍日常报修' (Logistics-Dormitory Daily Repair), '后勤-数字服务大厅' (Logistics-Digital Service Hall), '后勤-膳食服务中心' (Logistics-Catering Service Center), '大型活动和全校性会议申请' (Large Activities and University-wide Meeting Application), '智能表单' (Smart Forms), '公示信息' (Public Information), '网上竞价采购' (Online Bidding Procurement), '后勤-服务监督中心' (Logistics-Service Supervision Center), '研究生指导教师年度招生' (Graduate Supervisor Annual Recruitment), '从事教育工作30年’审查服务' (30 Years of Education Work Review Service), '个人账户管理' (Personal Account Management), and '个人中心' (Personal Center).

The '热门推荐' (Hot Recommendations) section displays a grid of six service cards, each with an icon, a title, and a heart icon indicating popularity:

- 学生收费费情况** (Student Fee Status): 5 hearts, 1 detail link.
- 研究生成绩** (Graduate Grades): 4 hearts, 1 detail link.
- 学籍异动情况** (Student Record Change Status): 4 hearts, 1 detail link.
- 教师课表** (Teacher Class Schedule): 3 hearts, 1 detail link.
- 校园卡消费记录** (Campus Card Consumption Record): 3 hearts, 1 detail link.
- 个人工作经历** (Personal Work Experience): 2 hearts, 1 detail link.

Business Service Portal Platform

Application Sample – Professional Title Evaluation

职称评审

1 申报须知 2 申报表信息填报 3 申报表信息预览 4 外审表信息填报 5 外审表信息预览 6 申请完成

2016年度职称评审申报

填报开始时间 : 2016-04-01 填报结束时间 : 2016-04-21 当前状态 : 正在申报中

填报须知 详见: 《西南大学专业技术职务网上申报指导手册》

已完成阅读

请填完所有选项再点击 下一步

← 上一步 下一步 →



Thank You!





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THANKS