Training Report- 3rd Joint Training Program
Digital Transformation for the Belt and Road (B&R) Countries
October 11th, 2021

BTBU-ECOSF Joint Training Center with support of China Association for Science and Technology (CAST) organized the 3rd joint Training Program on Digital Transformation for the Belt and Road (B&R) Countries on October 11th, 2021. This training was hybrid event where participants in Beijing joined the workshop at onsite at BTBU campus, while rest of the participants joined virtually through Zoom. The training attracted participation of over 80 participants from about 20 countries, particularly from the ECO Member Countries. This training workshop was moderated by Dr. Di Yuna, head of the BTBU-ECOSF Joint Training Center and Engr. Khalil Raza Scientific Officer – ECOSF. Renowned experts and market leaders in digital technologies participated as resource persons. The intended outcome of this training was to support policy development facilitating digital transformation, creating relevant knowledge and building capacities in emerging technologies in the BRI countries.

Training Theme

As Chinese President Xi Jinping pointed out in his speech at the Belt and Road Forum (BRF) for International Cooperation in May 2017, "we should be dedicated to the establishment of the 21st century 'Digital Silk Road' by adhering to innovation-driven development, strengthening cooperation in the frontier areas such as digital economy, AI, nanotechnology and quantum computers, and promoting the development of big data, cloud computing and smart cities. The "Digital Silk Road" initiative has promoted the interconnection of countries worldwide and provided development momentum for sustainable development in the world.

Countries around the world also wish to learn from China's experience in digital economy development and look forward to cooperating with China to promote their own digital development transformation. Given that, the Joint Training Centre organizes this international training program themed at Digital Transformation for BRI countries, which aims to share China's practice in digital technology application in agriculture, tourism and business for experts, scholars and enterprises from the BRI countries.


What is Digital Transformation?

Digital transformation is the process of adapting existing practices to new digital methods to increase efficiency and keep up with rapidly-changing market demands. This means integrating new technologies—big data, cloud computing, artificial intelligence, machine learning, the Internet of Things—into every area of the conventional business.

It's imperative to not just implement new technology for the sake of innovation, but to fundamentally change the culture and increase operational efficiency by using agile digital and modern business tools and techniques. This training on Digital

Transformation would provide an overview of digital tools that benefits everyone at government, business and individual level.
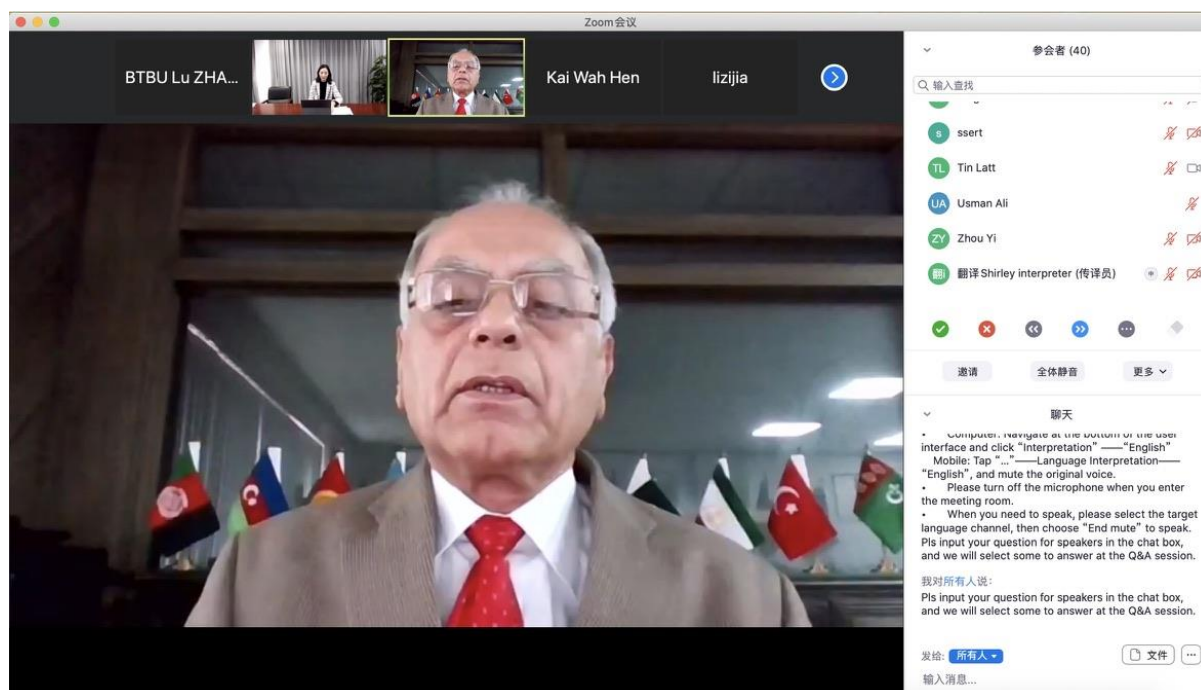
Prof. Dr. Manzoor Hussain Soomro, President ECOSF in his welcome remarks emphasized that Science, Engineering, Technology and Innovation (SETI) play a critical role in providing policy instruments that are essential to develop strong base of countries. Developing economies will need these digital tools at their disposal as they move toward greater economic productivity and opportunity. Prof. Soomro underscored that BRI of China commits to foster the industrial development with strong technical cooperation in many fields, including sustainable energy, infrastructure development, emerging technologies, and smart cities or transport etc. To achieve these massive goals, it requires a robust commitment to support science and engineering, including the capacity building and human resource development, Prof. Soomro remarked.

Prof. Soomro further elucidated that BRI offers a tremendous potential to spur a new era of trade, economic and industrial growth for countries in Asia and beyond. In order to maximize the benefits of BRI, the participating countries require to develop adequate technological workforce and engage in an alliance for promotion of cross-border cooperation in the Science, Technology and Innovation (STI) sectors." Prof. Soomro highlighted.

The training workshop addressed three focused areas of digital transformation

(a) Smart Agriculture
(b) Digital Tourism and
(c) E-commerce and platform economy

Mr. Zhenlei LIU, General Manager, Shanghai Idatasky Information Technology Co., Ltd.; Dean, CP-WELLWAY Institute of Smart Agriculture underscored that technology is advancing faster than we could have ever imagined. Across industries, new tools are being developed and released each day to boost efficiency, improve safety, increase profits and create innovative ways to communicate, navigate, conduct business and simply get the job done. Agriculture, one of the world's oldest and most respected professions, is among those constantly experiencing change.
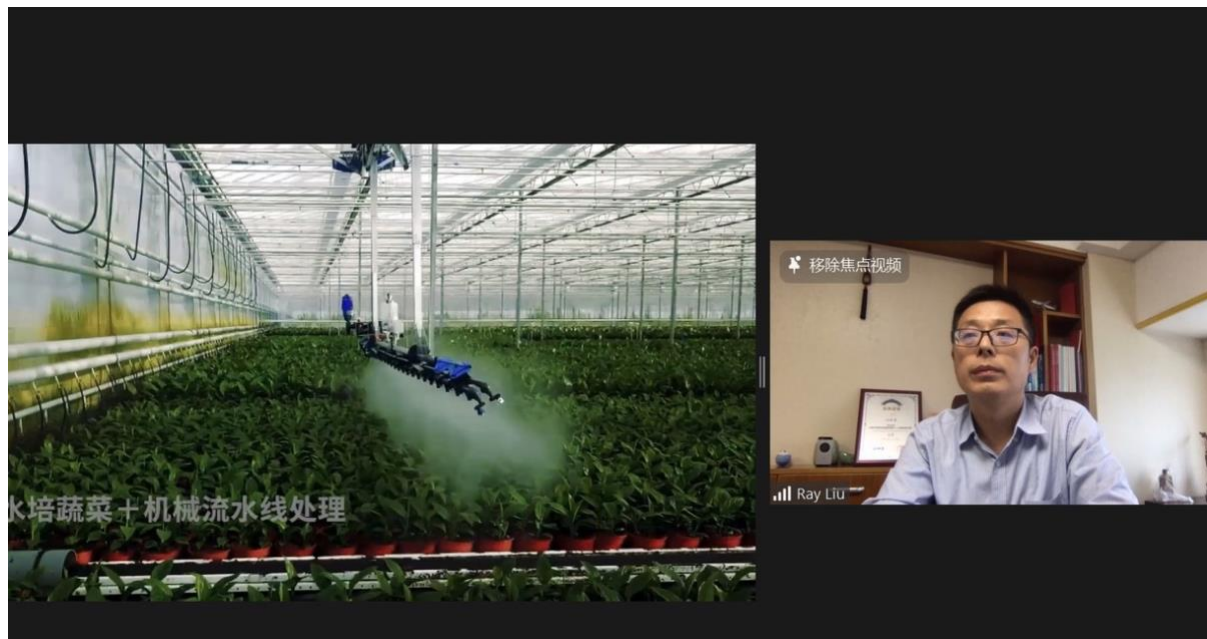

Mr. Liu highlighted that digitization, Internet of Things (IoT) and sustainability – are three fundamental megatrends that are guiding many economic sectors and there is a growing interest for integrating digital and smart technologies in the agriculture sector. "Smart agriculture" is an emerging concept that refers to managing farms using technologies like IoT, robotics, drones and AI to increase the quantity and quality of products while optimizing the human labor required by production.

Among the technologies available for present-day farmers are:

- **Sensors**: soil, water, light, humidity, temperature management
- **Software**: specialized software solutions that target specific farm types or Applications agnostic IoT platforms
- **Connectivity**: cellular, Wifi, *etc*.

- **Location**: GPS, Satellite, *etc.*
- **Robotics**: Autonomous tractors, robots, drones, processing facilities, *etc.*
- **Data analytics**: standalone analytics solutions, data pipelines for downstream solutions, *etc.*

Expert underscored that IoT can add value to all areas of farming, from growing crops to forestry. Precision agriculture is one of the most emerging applications of digital agriculture, which is an umbrella concept for IoT-based approaches that make farming more controlled and accurate. In simple words, plants and cattle get precisely the treatment they need, determined by machines with superhuman accuracy. The biggest difference from the traditional approach is that precision farming allows decisions to be made per square meter or even per plant/animal rather than for a field. By precisely measuring variations within a field, farmers can boost the effectiveness of pesticides and fertilizers, or use them selectively.
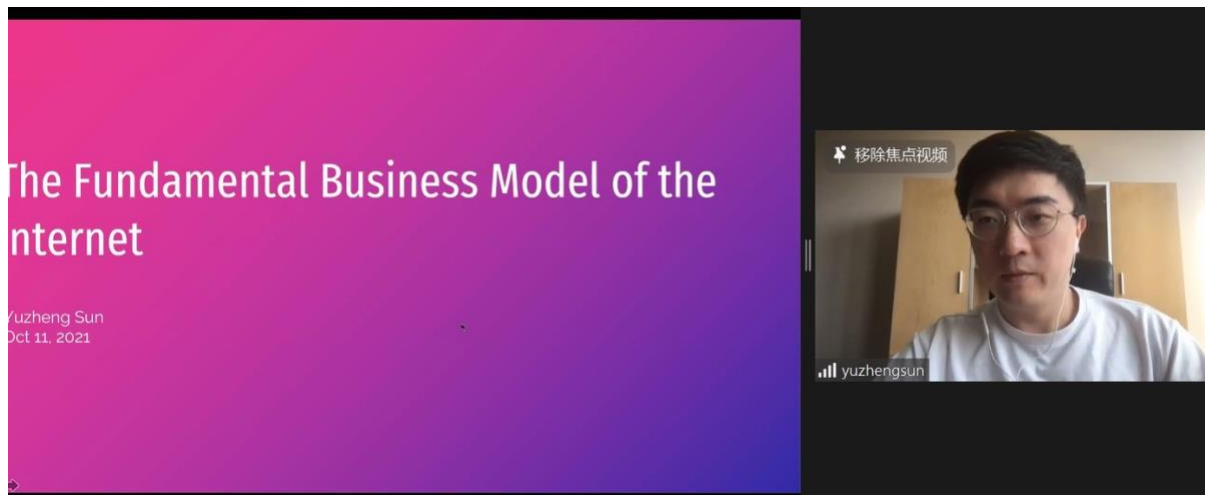
Mr. Yuzheng SUN Associate Director of Data Science, Interactive Entertainment Department, Tencent gave his talk on the Fundamental Business Model of the Internet. Mr. Sun gave a detailed outline of business models by predominant internet business, including Google, Facebook and Instagram etc. Mr. Sun stressed that The Internet has changed so many aspects of day-to-day life, and it has changed the means and ways the business are run. He further elaborated on the internet businesses, including Google or Facebook, he said these internet giants are primarily digital advertising companies. He exemplified that much of the revenue of Google comes from advertising domain via its search engine and its AdSense program, which places ads on millions of websites.

While in the case of Facebook, it makes money predominantly by showing ads from advertisers within its Facebook and Instagram apps. The Facebook business model is based on offering its tools and services mostly for free to billions of users and then making money by allowing businesses to show Facebook's users advertising. Advertisers pay the price to Facebook that is determined in an auction, based on demand and supply.

That means that people who use Facebook services (users) are not the ones paying Facebook for it. Real customers are primarily small businesses advertising on some of Facebook's family of apps. Facebook's focus on small businesses became an even more apparent part of the Facebook strategy as it introduced the first version of its e-commerce tools called Facebook Shops.

Pro. Nao LI, Professor, School of International Economics and Management, BTBU delivered her lecture on Smart Tourism. Prof. Li elucidated that China has introduced several initiatives to support transportation and promote digital technologies to ensure the travel and leisure industries keep pace with changing consumer trends and advances in technology. Smart tourism has become increasingly popular in China. Smart tourism intends to utilize modern technology and adjust the tourism service model to meet the growing demand for detailed travel services and products. Prof. Li emphasized that smart tourism provides a support system to tourists within the context of information services and an all-encompassing technology.

With smart tourism ecosystem, key stakeholders make use of digital technologies to improve tourists' experiences for wide ranging applications, from smart hotels offering check-in via mobile devices to real-time collection of tourist data for tailoring personalized hotel or sightseeing services.

Prof. Li compared the characteristics of both traditional tourist information services and those incorporated in smart tourism For the Chinese tourism market, smart tourism represents a new direction implying a significant influence on tourist destinations, enterprises, and tourists.

Prof. Li further shared that Chinese smart tourism is a government-oriented and centralized system that involves integration of multiple resources and departments, e.g., transport, technology, and hotels etc. Hence, the government has the greatest advantage to mobilize those resources. Based on above reasons, government plays important roles in constructing smart tourism system, which concretely manifests as guider and coordinator.

Prof. Yimin ZOU Associate Professor, School of Economics and Trade, Zhejiang Normal University presented his lecture on E-commerce. Prof. Zou underlined that digital commerce and economy is thriving because of its convenience enabling easier connectivity between sellers and buyers. This opens the way for radical changes in how businesses carry their work, socialize, create value in the economy, and compete for the resulting profits. E-commerce has completely changed the retail market, with shoppers foregoing a trip to the high street in favour of buying what they need from their computer or phone. It has also opened the market for local businesses, with the likes of small boutiques now being able to export to an international market if they wish to do so. As a matter of fact, some businesses now choose to exist solely online, avoiding the costs of rent and retail staff.

Prof. Dr. Dandan Xu Vice President, Beijing Technological and Business University (BTBU) gave his closing remarks towards the end of training workshop. Prof. Xu concluded that transformative powers of digital technology will be at the heart of sustainable economic growth in the Belt and Road region. Dr. Xu assured Chinese institutions, including BTBU are committed to infusing digital best practices into current and new programs to foster the opportunities and imperatives of inclusive digital transformation.