



Empowered lives.
Resilient nations.



Futurescaper

THE FUTURE IS MADE IN CHINA

*An Analysis of Emerging Innovation
Trends in China*

July 2015

United Nations Development Programme (UNDP) China



In December 2014, the United Nations Development Programme (UNDP) in China, using the services of [Futurescaper](#) (Annex) launched a public website survey to receive more information on innovations trends in China.

This foresight exercise was meant to examine the climate of Chinese innovation, as reported by Chinese citizens and other experts from the general public residing in China or abroad. The assumption was that although many people think that China is good in copying and adapting products, a great deal of innovation might be going on in China which the world is unaware of. This Futurescaper exercise aims to reveal that products are not only “made in China” but that at the same time are part of “the future is made in China”.

Futurescaper’s tools help organizations uncover and map out the drivers and dynamics that their stakeholders think are most important, understand why they think this is, and explore what their implications are for the future. By combining human insight with analytics together with a great visualization tool, they make this process faster and cheaper than traditional scenario workshops, more insightful and interactive than surveys, and more participatory and empowering than traditional expert analysis.

In a vast country like China (around 20 percent of the world’s population), where information is widely distributed being the 3rd biggest country by surface, crowdsourcing may be the only way to discover such information. UNDP China with Futurescaper aimed to:

- Identify examples of Chinese innovations, by using the online platform and engaging a range of stakeholders online
- Analyze the examples to derive the emerging trends and issues that people feel represent the leading edge of innovation in China
- Create an overview of innovation in China that pinpoints specific areas of interest for work in the future

Innovation is key to unveiling new solutions to development challenges. UNDP has been working with China for over three decades to deliver their expertise. In the past, UNDP has worked with different private and public sector partners to create innovative products.

Last year, UNDP China with its private sector partner, Baidu, China's largest web search engine developed [an e-waste recycling light app](#). The app called Baidu Recycle connects users who have old and used electronic appliances with recycling companies that collect this disposed of waste. Currently, the app, useful only in Beijing and Tianjin as they are the first two pilot sites, has successfully recycled around 2,000 electronic appliances. Baidu Recycle version 2.0 will be scaled up nationwide connecting several individuals and their disposed electronic waste to recycling companies.

More recently, UNDP China has integrated the use of mobile applications in its advocacy work. UNDP with its government counterpart the Ministry of Environmental Protection has produced its own first-ever smartphone application on Persistent Organic Pollutants (POPs) called [POPs Hunter](#). The POPs Hunter is a bilingual, interactive smartphone game that uses 23 unique cartoon figures alongside scientific facts, one for each POP, to create an engaging end-user experience. The game assigns rewards and recognition and ultimately serves to educate general audiences. POPs Hunter will, through "gamification", simplify these complicated chemical compounds and raise awareness of their effects on people and the environment.

From a smartphone game educating citizens on 23 Persistent Organic Pollutants (POPs) to an e-waste app that allows citizens to recycle and dispose of their electronic waste online, UNDP has been at the forefront of innovation. Looking forward, UNDP will work with more private sector partners, such as Futurescaper, to find new fields and opportunities for innovation.

Methodology: Wisdom of Crowds

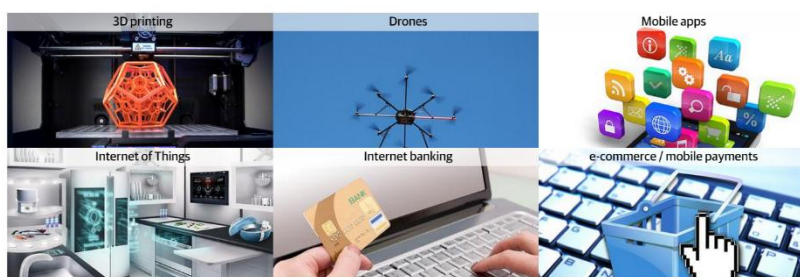
To find new innovation opportunities, UNDP China held a large-scale 'ethnography of Chinese innovation'. From 3D printed homes to many other examples, China is full of amazing "seeds of the future" that currently very few people are talking about. The purpose of this project was to discover the trends and innovations that are coming out of China and could potentially change the world. The methods used by the project can be summarized in the following three steps:

1. Created Futurescaper survey websites:

Initially, first round of Futurescaper web-surveys were created in English and Chinese to reach the maximum number of participants.

Using Futurescaper's methodology, the surveys walked respondents through exercises to identify key trends and drivers in the Chinese innovation scene, get their opinion on how these can bring positive social outcomes, explore enablers and barriers to innovation, and nominate exciting innovators. In the first round, the surveys asked the following open-ended questions:

- a) What are the hottest current trends in the innovation scene in China?
你觉得，当前在中国的创新方面，有着怎样的最热门的趋势？
- b) What social positives can innovation bring?
这个创新可以为社会带来什么积极的影响？
- c) What currently helps the climate of innovation in China?
请输入一个你认为将给社会带来最大积极贡献的创新领域
- d) Conversely, what are some factors hindering progress of innovation and what can be done to mitigate them?
在您看来，在中国关于{X}这一创新领域的发展氛围如今面临着怎样的帮助或阻碍？
- e) Who (person or company) is at the forefront of innovation in China, doing the most exciting things? What are they doing?
当说起{X}，关于其前沿的创新趋势，你见过或听说过的哪些例子是让你最为印象深刻的？



[← Back](#) [Next →](#)

Using the outcome of the first phase, a second Futurescaper survey was created highlighting and asking questions on the six innovation trends that were mentioned multiple times in the first round.

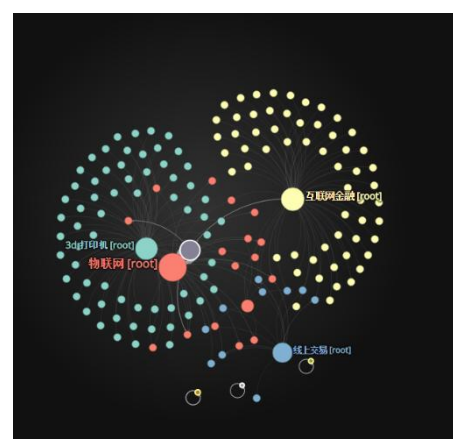
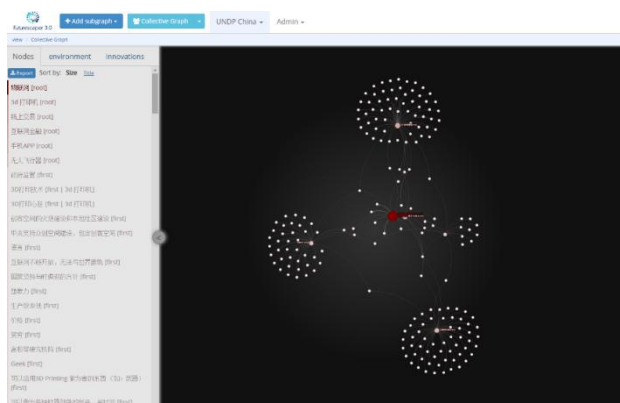
2. Engaged respondents in online survey campaign:

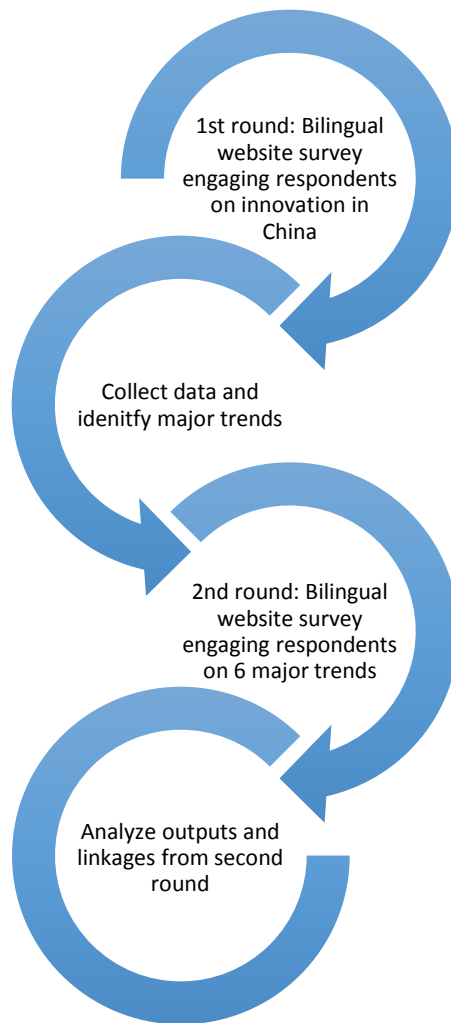
After the launch of the survey websites, UNDP engaged potential respondents in the online campaign through direct email, blog posts, social media, word of mouth and general public promotion. UNDP contacted several specific groups for inputs including:

- a) University students and professors
- b) Any relevant think-tanks, foundations, or research centres
- c) Active bloggers, active social media participants, and/or opinion leaders
- d) Relevant business leaders or industry groups
- e) Other UN agencies

3. Analyzed outputs and linkages:

Once a critical mass of responses was collected from each survey, the next step was to analyze the results and implications from the survey. These included: most influential trends and innovators; key enablers, barriers, and social consequences; clusters of innovations into higher level themes; and maps that bring all of these together (such as those depicted below).





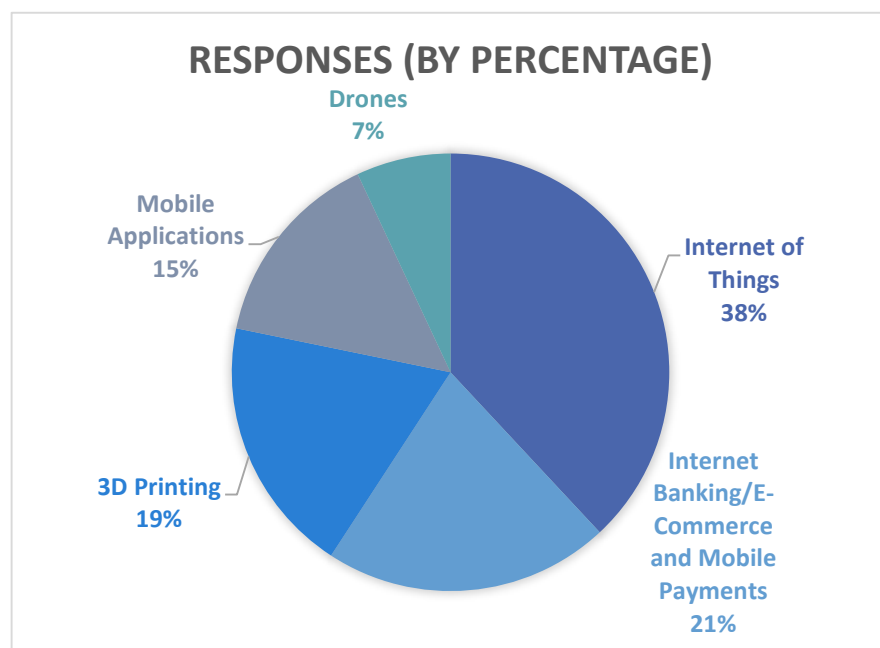
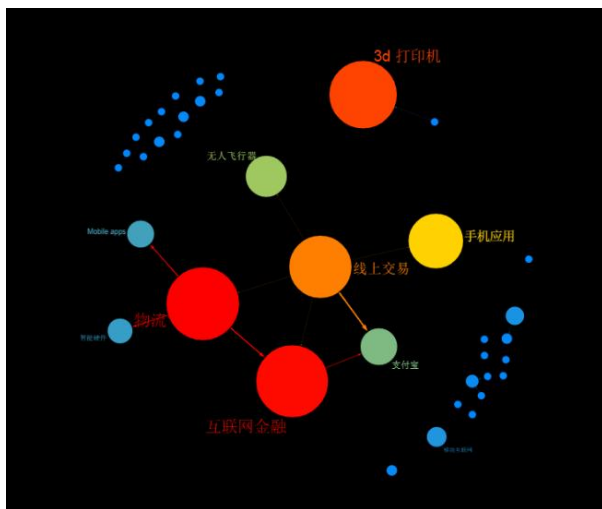
With around 450 combined responses from round 1 and round 2, certain linkages and analysis on emerging innovation trends in China can be identified. The analysis of these trends will be discussed in the next section.

Major Innovation Trends in China

The report is focused on identifying the current innovation trends booming in China. After collecting data from all responses, six trends, later five, were identified by most respondents as being “key” innovations. These were 3D printing, drones, mobile applications, internet of things, e-commerce & mobile payments, and internet banking.

However, after further analysis the report found that respondents considered internet banking and e-commerce as one innovation so the report groups these two innovations as one. Other categories identified, such as wireless internet, were not further analyzed in the second round due to the limited amount of people identifying these as “current trends”.

Analysis using Futurescaper indicated that there were five categories mentioned most by respondents. These are highlighted below with the red, yellow and orange big dots. The pie chart also shows the responses by percentage indicating that the internet of things was the most popular response.



For each innovation trend, the report will use a two-tiered analysis method. The first phase analyzes the positive social outcomes in response to the question “what social positives can innovation bring?” The second phase analyzes factors helping and factors hindering innovation in response to the questions “what currently helps the climate of innovation in China?” and “what are some factors hindering progress of innovation and what can be done to mitigate them?”

Current Trends in China's Innovation Scene

-
- ```
graph TD; A[Current Trends in China's Innovation Scene] --> B[1. 3D Printing
2. Drones
3. Mobile Applications
4. Internet of Things
5. Internet Banking, E-Commerce and Mobile Payments]; B --> C[Social Positives]; C --> D[Factors Helping Innovation]; C --> E[Factors Hindering Innovation];
```
1. 3D Printing
  2. Drones
  3. Mobile Applications
  4. Internet of Things
  5. Internet Banking, E-Commerce and Mobile Payments

Social Positives

Factors Helping Innovation

Factors Hindering Innovation



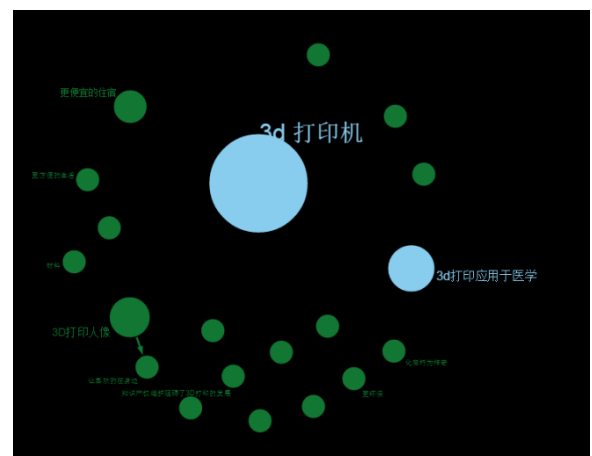
3D printing, also known as additive manufacturing, is a process that converts digital files and “prints” three-dimensional solid objects. Most recently, 3D printers have been used to create rapid prototypes such as 3D-printed shoes, models for the apparel industry, as well as parts for automobile, construction and medical industries.

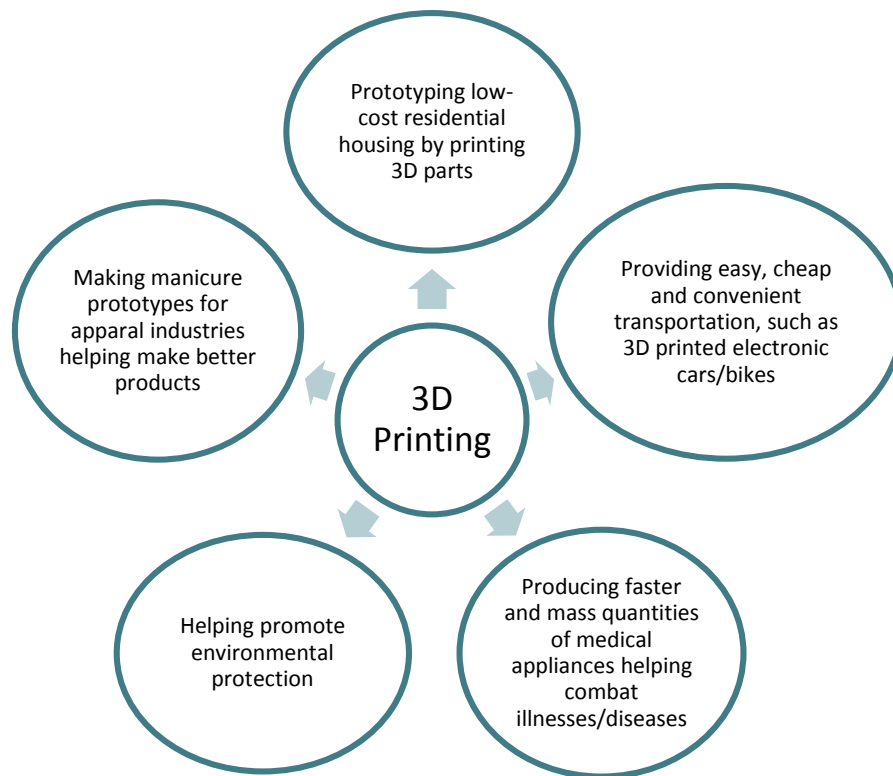
Recent research suggests broadening the use of 3D printing to build objects in space. In [a recent article in the Wall Street Journal](#) called *How 3-D Printing Is Going Out of This World*, researchers have discussed using lunar dusk as ink to print parts made of ceramics, composite materials and high-temperature polymer plastics and even an entire moon base.

### *Who's at the Forefront?*

In China, Su Bo, Vice Minister of Industry and Information Technology said that China should establish plans to speed up research and development and application of 3D printing technologies. When participants were asked to name who was at the forefront of this innovation, a participant mentioned the possibility of universities such as Xi'an Jiaotong University. Mr. Lu Bingheng, the Dean of the School of Mechanical Engineering at Xi'an Jiaotong University and also known to develop the first UV rapid prototyping machine in the world, called 3D printing equipment as an “indicator of the dynamic and innovation capability of an economy.” Other universities working towards this initiative include Huazhong University of Science and Technology, Tsinghua University and Beijing Long Yuan-Automated Fabrication System.

Survey data suggests participants saw several different positive social outcomes of such an innovation. 3D printing creates social positive outcomes for different industries such as housing, transportation, apparel, medical, electronics, and environmental protection industries.





When participants were asked what hinders or helps 3D printing innovation, a variety of responses were received.



### **Factors Helping Innovation in 3D Printing:**

Respondents believed great progress can be achieved in the field of 3D printing due to two main factors. These were a. the rapidly increasing development of 3D technology which is now being used in multiple industries and b. increasing investments in 3D printing not only financially speaking but also educational investment in universities and colleges.



### **Factors Hindering Innovation in 3D Printing:**

Hindering factors can be grouped in three categories that are technical hindrances, market hindrances and hindrances due to ethical reasons:

- **Technical Hindrances:**

Survey respondents saw several technical issues with the idea of 3D printing. The complicated nature of materials used in 3D printing, the complexity of 3D printers and

required designs, lack of convenience, and lack of online security were all reasons that hindered 3D printing from a technical standpoint.

- **Market Hindrances:**

Another set of hindrances mentioned were market-related. Participants felt that 3D printing would not be supported on the policy level given major copyright issues. There were also some concerns over actual market demand for an innovation like 3D printing, calling into question whether it will be used widely or not, in households and offices, in everyday life, or just a trend in specific factories and industries. Relating to demand were concerns over how to market 3D printing, considering the future of the internet world means people seldom feel the need to print. Lack of mass investment and low production efficiency given high costs and time were also raised.

- **Ethical Hindrances:**

Respondents raised a few key hindrances related to ethics. For one, the survey results showed that respondents felt worrisome as 3D printing could be used to print arms, weaponry, and more. Unethical mass development of armed forces was mentioned as a concern. 3D printing and so 3D printers would also create a further inequality gap, as the poorer segments of society cannot afford these printers which currently serve as luxury products.

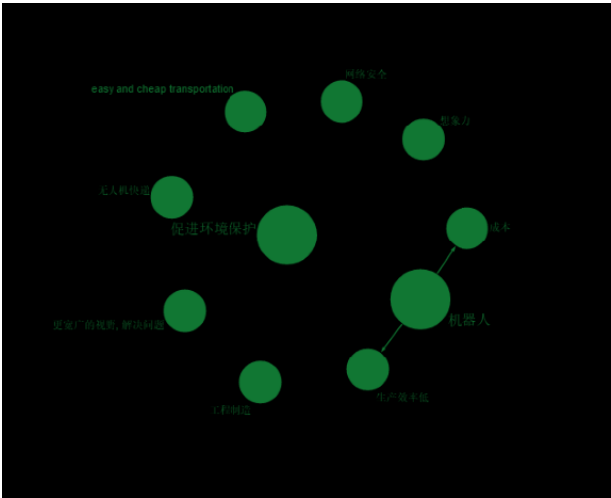
While respondents do recognize the social positives that could be achieved through 3D printing, it is clear that technical, market and ethical hindrances serve as obstacles for this innovation trend.



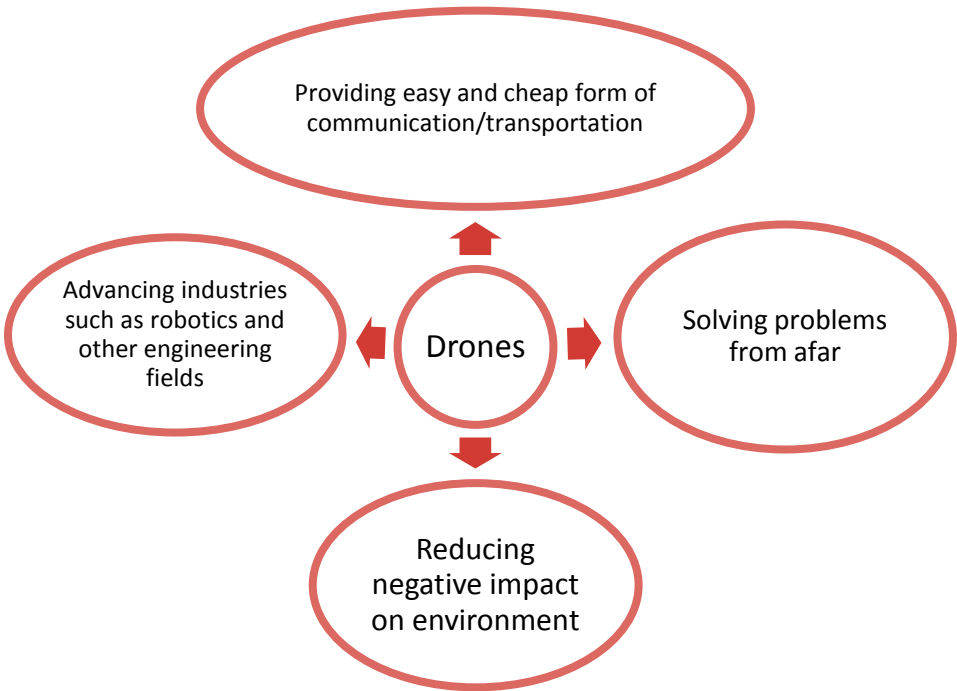
# Drones

There are many different types of drones, also known as unmanned aerial vehicles, but in the development field the most widely known are delivery drones utilized to transport packages and food.

Social positives out of drone innovation as noted by participants were enhanced form of communication, solving problems from afar, greater environmental protection given low emissions from drones, and also the potential of drone advancement to impact development in other industries such as robotics and other engineering fields.



Participants were asked to give examples of companies and individuals at the forefront of this innovation but none mentioned any examples, highlighting the lack of education and knowledge on this innovation trend.



## Factors Helping Innovation in Drones:

Survey respondents identified some factors that will help achieve the social positives mentioned above from drone advancement. Factors boosting drone innovation were the

advancement of green energy, increased funding in drones globally and the development of technology such as drone aerial surveys. Moreover, participants felt that the increase in global competition over technology and the pressure to come out with the latest innovations will help more and more talented people, as mentioned in the survey, to expand and advance drone use.



#### **Factors Hindering Innovation in Drones:**

There are two potential factors hindering advancements in drones. Firstly, given strict government supervision, drones are not something easily produced and owned. Ownership of drones is still mainly with agencies as opposed to individuals. Secondly, drones are expensive and so the high cost can deter drones from becoming a big trend in innovation amongst the general public.



## Mobile Applications

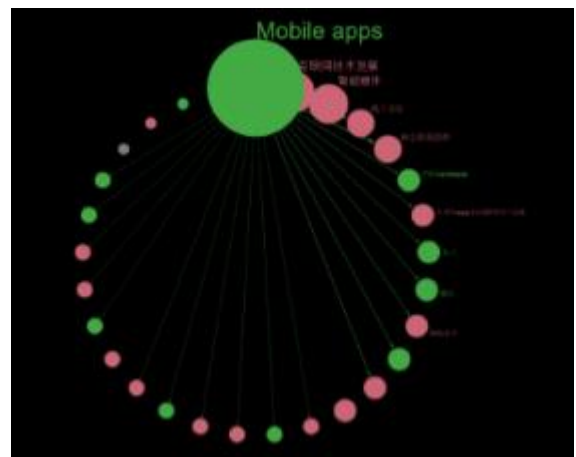
Ever since the introduction of smartphones, and with thousands more obtaining smartphones every day, there has been an enormous increase in the number of mobile applications that are available for every-day use.

Many websites now strive to create their own app so users can reach the website and regularly visit it through mobile phones. For example, Facebook no longer exists just as a website but instead has its own application and Facebook Messenger has its own separate application. Mobile applications are also inter-related. For example, posting something on Instagram can be shared instantly and almost simultaneously on other accounts such as Facebook.

### *Who's at the Forefront?*

According to survey respondents, Tencent and Huateng Ma, also known as Pony Ma, are at the forefront of creating high-quality mobile applications. Pony Ma is the Core Founder and Chief Executive Officer of Tencent, one of China's largest and most used Internet service portals known for its leading internet platforms in China Q (QQ Instant Messenger), WeChat, QQ.com, QQ Games, Qzone, 3g.QQ.com, SoSo, PaiPai and Tenpay. These applications have brought together China's largest Internet community, to meet the various needs of Internet users including communication, information, entertainment, e-commerce and others. Participants reported Tencent as being the most convenient, user-friendly producer of apps, helpful in linking people from all ages and creating all-in-one featured apps.

Mobile applications can positively contribute to society by increasing connectivity via mobile phones. In the past, mobile phones were only used to call and text, now they are used for a variety of different things including serving as news sources with mobile applications for specific news sites and as a mechanism to raise awareness and convene people around social issues and unrest around the world.



### **Factors Helping Innovation in Mobile Applications:**

Some factors helping innovate mobile applications is the increased use of smartphones and so the need to develop applications for more people but also different needs. Survey respondents mentioned WeChat and the multiple features it houses from mobile payments

to video calling. Other factors include the increased use of internet in the form of more broadband plans which means more and more people are connecting to the internet and so downloading mobile applications.



#### **Factors Hindering Innovation in Mobile Applications:**

Compared to other innovation trends, survey respondents mentioned very few factors hindering innovation in mobile applications. There was a reported lack of innovational thought when it came to mobile applications as respondents felt that most applications cannot solve true needs of users especially development needs of underprivileged groups. Even well-designed mobile apps face the issue of 'digital divide', failing to reach the most vulnerable and deprived who have limited access to smartphones. Respondents also worried about online security of applications and the high cost of some applications.



## Internet of Things

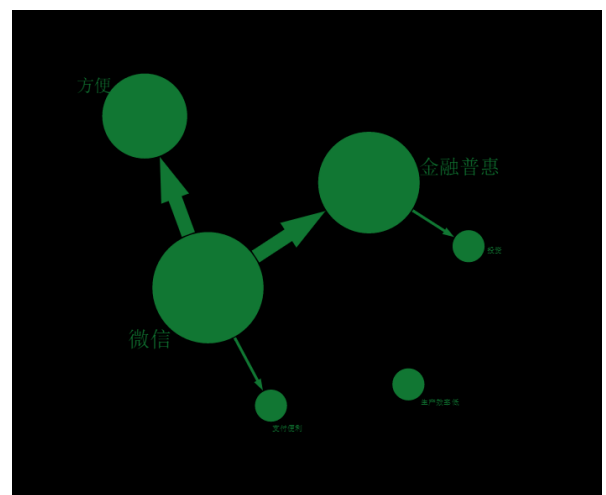
Nowadays, millions are connected to the internet in some shape or form at all times. Internet of Things (IoT) refers to a mechanism by which many different types of devices and “smart things” are connected to each other through the internet. Some examples are heart monitoring implants, washers and air conditioners (AC) utilizing Wi-Fi and mobiles for remote monitoring. These devices (e.g. mobile phones) collect data and connect to other devices (e.g. air conditioners).

According to [an article in Harvard Business Review](#), “the Internet of Things is big and it will continue to grow along with user-oriented computing...it will be the focus of digital business products and processes in industrial and operational contexts. Expect technology to be embedded everywhere.”

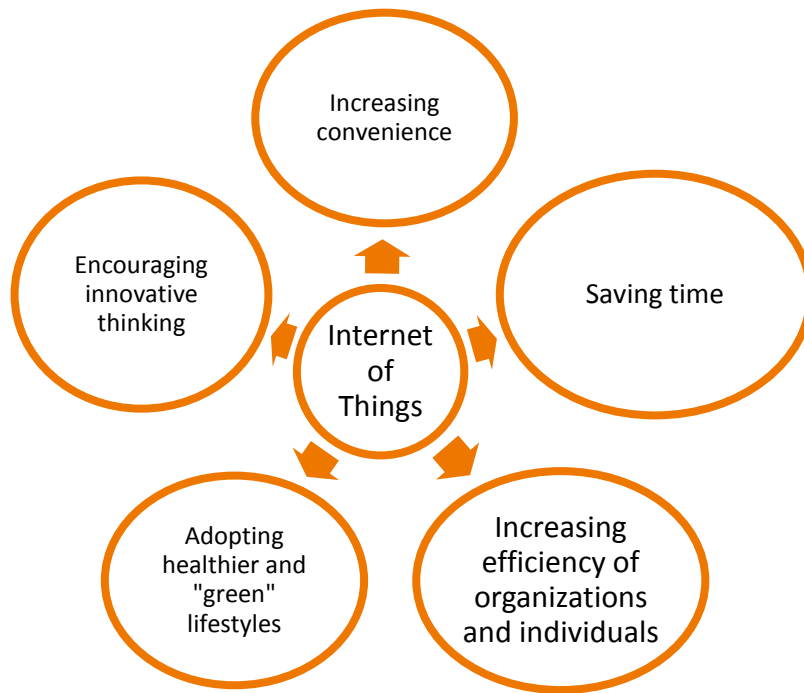
### *Who's at the Forefront?*

Participants in the survey believed CINNOVATE Nesta was at the forefront of building on the concept of the Internet of Things. The organization's mission is to support change makers, enable cross-sector collaboration, and catalyze effective strategies and solutions to tackle social challenges. They want to build “a vibrant social innovation ecosystem”. Some recommendations and work of Nesta with partners such as UNDP and Intel can be found in Nesta's recent publication Rethinking Smart Cities from the Ground Up.

The Futurescaper survey results suggested several social positives. The IoT has made everything very convenient, saving time and increasing efficiency for all individuals and organizations that are using the IoT more and more widely. Responses received also noted that IoT encourages innovative thinking for healthier and “green” lifestyles in turn promoting environmental protection. An example is switching your AC or garden sprinklers on and off remotely. This saves time, energy and water with just a click of a button. It is important to note that the IoT network has not been widely implemented in China or globally and so true social positives have yet to be realized.







### **Factors Helping Innovation in Internet of Things:**

There are several factors that are helping innovate IoT. These include the mass development of certain types of technology from smartphones to mobile applications to smart watches. The convenient and low cost nature of using mobiles and apps to conduct daily activities rapidly connects people to the internet. With the development of technology and specifically internet technology, participants believed that building a stronger network for all “things” on the internet will boost innovation in IoT, giving rise to different types of products and possible networks in the near future.



### **Factors Hindering Innovation in Internet of Things:**

On the other hand, survey results suggest that there is one policy that could hinder the development of IoT and that is policies that avoid the use of internet. To this day, some departments follow age-old practices, which don’t require one to be connected to the internet. This could potentially limit some from joining the revolution of IoT and realizing the vision of “all things connected”.



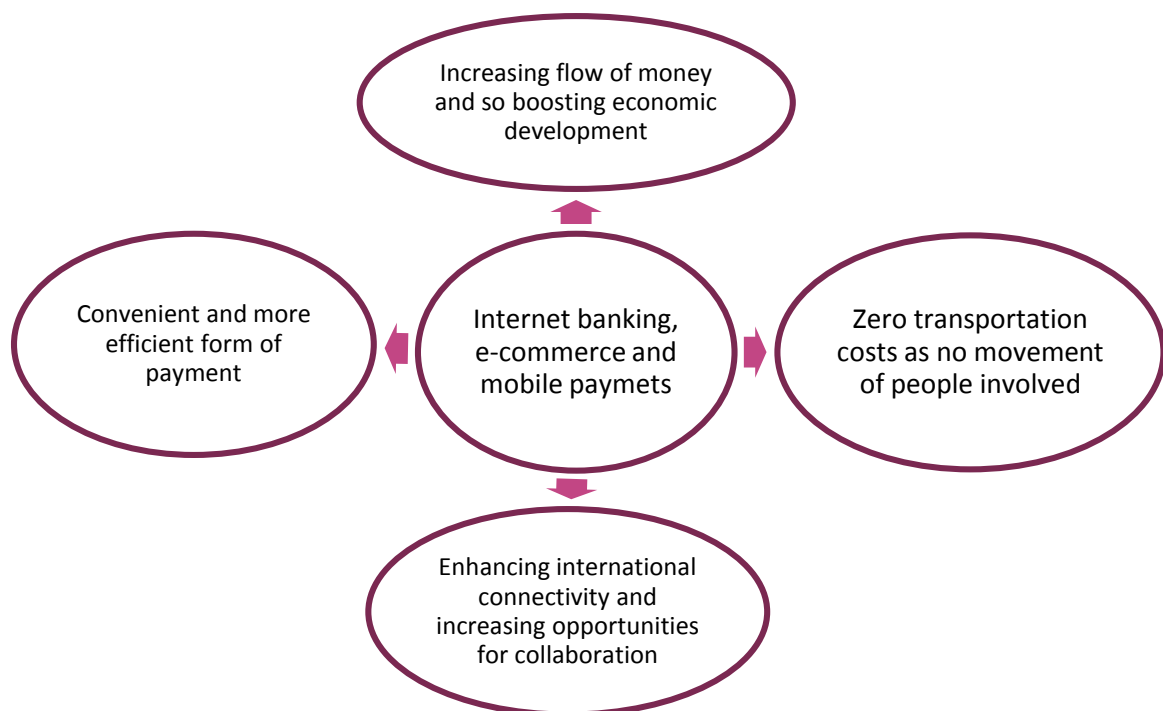
## Internet Banking, E-Commerce and Mobile Payments

The concept of internet banking and e-commerce is the idea of conducting more and more business online through internet-provided services than face-to-face transactions. Internet banking is becoming more common than ever before. Investments in internet banking are increasing daily with almost every mainstream bank and business providing online services.

### *Who's at the Forefront?*

As reported, a good example of this happening in China is Alibaba, and the affiliated Ali Pay feature, as it rises to become the largest e-commerce and so e-pay company in the world. According to the [Ali Baba Group](#), Ali Pay is now teaming up with different countries, with the main target countries being high-end tourist places such as Thailand, Malaysia and Indonesia. Last year, the group partnered up with Singapore's eNets payment service to allow Singaporeans to pay for purchases on Taobao Marketplace and Tmall.com using their local bank accounts, making more and more payments online and easier. Participants also mentioned how people are able to invest in bonds and gold in small amount of money, all through online transactions. Small-medium enterprises (SMEs) can also get loans from banks within days simply by providing some business records. This access to unconventional financing via a digital platform is what makes Alibaba a frontrunner in e-commerce.

According to survey responses, some obvious social positives from internet banking are:





### **Factors Helping Innovation in Internet Banking:**

Some reported factors boosting innovation in online business are the ever-increasing population and free movement of people. The more people move whether it's for jobs or to migrate and settle, there will be a need to conduct business and transactions from afar and so the need to continue developing the idea of internet banking to make services safer and better connected.

Moreover, the development of app technology as well as activities such as online shopping that are becoming increasingly popular consumer habits will also enhance use and development of online transactions. As more and more companies commercialize and have an online presence, the more transactions will take place on online platforms.


















### **Factors Hindering Innovation in Internet Banking:**

Very few survey results suggested any factors hindering innovation in online business. However, there were respondents concerned about privacy and data safety when conducting all transactions online. With the boom in online businesses and increased use of internet comes the risk of hackers and low online safety. This fear if widely adopted by businesses and individuals may hinder innovation in online business

.

# Snapshot Analysis

Based on survey responses, we can summarize the social positives and factors helping and hindering each innovation trend in the table below:

| Innovation Trend                                                                                                                              | Examples of Innovation Leaders                                                                                                                   | Social Positives                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Factors Helping and Hindering Innovation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3D Printing</b><br>                                        | Xi'an Jiaotong University, Huazhong University of Science and Technology, Tsinghua University and Beijing Long Yuan-Automated Fabrication System | <ul style="list-style-type: none"> <li>➤ Prototyping low-cost residential housing by printing 3D parts</li> <li>➤ Providing easy, cheap and convenient transportation, such as 3D printed electronic cars/bikes</li> <li>➤ Making manicure prototypes for apparel industries for better end products</li> <li>➤ Helping promote environmental protection</li> <li>➤ Producing faster and mass quantities of medical appliances helping combat illnesses/diseases</li> </ul> |  Increased development in 3D technology, used in multiple industries; Increased educational investments in 3D printing through universities and colleges<br><br> <b>Technical Hindrances:</b> Complexity of 3D printers and required designs, lack of convenience<br><b>Market Hindrances:</b> Low demand and major copyright issues<br><b>Ethical Hindrances:</b> 3D printing used to print arms and weaponry, 3D printers create a further inequality gap |
| <b>Drones</b><br>                                            | None identified                                                                                                                                  | <ul style="list-style-type: none"> <li>➤ Providing easy and cheap form of communication/transportation</li> <li>➤ Solving problems from afar</li> <li>➤ Advancing robotics and other engineering fields</li> <li>➤ Reducing negative impact on environment</li> </ul>                                                                                                                                                                                                       |  Advanced green energy; Increased funding in drones globally and the development of technology such as drone aerial surveys; Increased global competition<br><br> Strict government supervision over drones; High cost of drones                                                                                                                                                                                                                          |
| <b>Mobile Applications</b><br>                              | Tencent (Q (QQ Instant Messenger), WeChat, QQ.com, QQ Games, Qzone, 3g.QQ.com, SoSo, PaiPai and Tenpay)                                          | <ul style="list-style-type: none"> <li>➤ Increasing connectivity via mobile phones</li> <li>➤ Raising awareness and convening people around social issues and unrest around the world</li> </ul>                                                                                                                                                                                                                                                                            |  Increased use of smartphones and so the need to develop applications for more people but also different needs; Increased use of internet in the form of more broadband plans<br><br> Lack of innovational thought; Widening the 'digital divide'                                                                                                                                                                                                       |
| <b>Internet of Things (IoT)</b><br>                         | CINNOVATE Nesta                                                                                                                                  | <ul style="list-style-type: none"> <li>➤ Increasing convenience</li> <li>➤ Saving time</li> <li>➤ Increasing efficiency for all individuals and organizations</li> <li>➤ Encouraging healthier and "green" lifestyles in turn promoting environmental protection</li> </ul>                                                                                                                                                                                                 |  Advanced development of certain types of technology such as smartphones, mobile applications and smart watches<br><br> Age-old companies and individuals who avoid use of internet                                                                                                                                                                                                                                                                     |
| <b>Internet Banking, E-Commerce and Mobile Payments</b><br> | Alibaba and Ali Pay                                                                                                                              | <ul style="list-style-type: none"> <li>➤ Increasing flow of money and so boosting economic development</li> <li>➤ Increasing convenience and efficiency</li> <li>➤ Zero transportation costs as no movement of people involved</li> <li>➤ Enhancing international connectivity and increasing opportunities for collaboration</li> </ul>                                                                                                                                    |  Ever-increasing population and free movement of people; Rapid development of app technology as well as increase in activities such as online shopping<br><br> Low online safety and risk of hackers                                                                                                                                                                                                                                                    |

This analysis of emerging innovation in China has not only identified five potential trends (3D printing, drones, mobile applications, internet of things, and internet banking, e-commerce and mobile payments), but also highlighted some key points regarding the future of innovation in China in the coming years. There are four key points we can conclude based on this data analysis exercise:

- 1. Innovation is everywhere:** China is a hub for innovation with many, experts as well as the general public, taking notice of these innovation trends and increasingly engaging in conversations about them. According to the National Bureau of Statistics of China, in 2013 more than 7 million graduated from the country's universities last year securing a Bachelor's or a Master's in fields of education, scientific and technology. Some [studies](#) show this number is seven times the number 15 years ago, highlighting that China is rapidly moving from a cheap labor destination to a country producing a highly-skilled workforce which will play a part in boosting entrepreneurship and innovation for years to come.
- 2. Growth of innovation is uncertain:** The innovations identified along with the hindering and helping factors as well as the social positive outcomes gathered from the survey show that some innovation trends might grow at a faster rate than others. For example, from the analysis few mentioned hindering factors for mobile applications as well as internet banking, e-commerce and mobile payments. In the coming years there may be rapid advancements in these fields.
- 3. Development needs innovation:** Studying the frontrunners of innovation, the report highlights that the majority of innovation takes place in the private sector and universities. This innovation can go hand-in-hand with finding solutions for development challenges in China and across the world. Globally and locally, UNDP is already working to see where innovation can be used to make the world a better place. In China for example UNDP used mobile applications to promote knowledge of pollutants (POPs Hunter smartphone game) and solve problems of e-waste recycling (Baidu Recycle app for e-waste disposal). UNDP, based on these identified innovation trends and frontrunners, can find possible areas and partners for further development cooperation.
- 4. Innovations are interdependent:** The exercise of analyzing innovation trends has made it very apparent that the development and so advancement of one innovation is very much dependent on the advancement of another innovation. For example, the improvement in internet banking, e-commerce and mobile payments is very much interrelated to the progress made in developing mobile applications and internet of things.

Discovering and mapping new ideas and innovations can provide effective solutions to local and global developing challenges. The report highlights the potential benefits of innovation in various fields from healthcare to transportation to banking, ensuring that much of the future can be determined in China. Evidence suggests that *innovation* is in fact another product coming out of China and so is very much "made in China".

## **Annex**

*Futurescaper is a crowd-source strategy company that specializes in participatory scenario planning and foresight. The company was founded in 2011 in London, England, based on its founders' PhD research at MIT and MBA at the University of Oxford. They provide software to clients engaged in complex issues, particularly those involving multiple stakeholders.*

***This publication was produced by the United Nations Development Programme (UNDP) China with significant contributions made by a number of individuals. The following individuals have made significant contributions to this report:***

Ramya Gopalan (UNDP Regional Knowledge and Innovation Specialist), Patrick Haverman (UNDP Deputy Country Director), Li Xi (UNDP Associate Communications Officer), Yumna Rathore (UNDP International Communications Consultant), Jianan Ye (UNDP Communications Assistant), He Yi (UNDP Communications Intern) as well as Noah Rford, Giorgos Georgopoulos and Shuzhi Zhou from Futurescaper.



*Empowered lives.  
Resilient nations.*



Futurescaper