



**Decent Work and Economic Growth**  
体面就业与经济增长

**Creativity**  
**创意 2030**

# C2030 #2

## Decent Work and Economic Growth 体面就业与经济增长

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**C**reativity 2030 Journal (C2030) was launched by the International Centre for Creativity and Sustainable Development under the auspices of UNESCO (ICCS), an editorial venture promoting the achievement of the 2030 Sustainable Development Goals (SDGs) through creativity.

C2030 is not about the latest or the newest. It is about practical actionable solutions to social challenges, focusing on those born from creative thinking and innovative problem solving, and with the potential to empower local communities and drive international debate.

As António Guterres — Secretary-General of the United Nations — states in the foreword to The Sustainable Development Goals Report 2019, “Since its inception in 2015, the 2030 Agenda has provided a blueprint for shared prosperity in a sustainable world—a world where all people can live productive, vibrant and peaceful lives on a healthy planet. [...] progress is being made in some critical areas, and some favorable trends are evident”. Nonetheless, a decade before we reach 2030, many areas are still in need of urgent collective attention.

Mr Liu Zhenmin, Under-Secretary-General for Economic and Social Affairs, clearly states that climate change is surely the most urgent area for action, and that “The other defining issue of our time is increasing inequality among and within countries.

Poverty, hunger and disease continue to be concentrated in the poorest and most vulnerable groups of people and countries”.

This issue of C2030 is thematically anchored by Social Development Goal #8. “Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all”

Sustained and inclusive economic growth can drive progress, create decent jobs for all and improve living standards. As shown in the SDG Report 2019, real GDP per capita and labour

**Real GDP grew by 4.8% annually in LDCs (2010–2017). Less than the 7% SDG target**  
2010–2017年最不发达国家的实际国内生产总值年均增长4.8%，低于7%的可持续发展目标具体目标

《创意2030》是由联合国教科文组织国际创意与可持续发展中心 (ICCS) 发起的一个通过创意推动实现2030可持续发展目标的出版计划。

《创意2030》并不着重于提供最近或最新的资讯。它涉及应对社会挑战的切实可行的解决方案，着眼于那些具有创造性思维和创造性解决问题的能力，有潜力为当地社区赋权并推动国际性讨论的方案。

正如联合国秘书长安东尼奥·古特雷斯在《2019年可持续发展目标报告》的序言中所言，“自2015年启动以来，《2030年可持续发展议程》已经为可持续发展世界的共同繁荣提供了一幅蓝图——在这个世界里，所有人都可以在健康的星球上过着富足、充满活力的和平生活……在一些关键领域正在取得进展，一些有利趋势显而易见。”然而，在2030年来临之前的这十年中，仍有许多领域亟须我们共同关注。

负责经济与社会事务的联合国副秘书长刘振民明确表示，气候变化无疑是最亟待解决的问题，且“我们这个时代的另一个重要问题是国家之间和国家内部的日益加剧的不平等。贫穷、饥饿和疾病继续集中于最贫穷和最脆弱的人民和国家群体。”

本期《创意2030》的主题契合可持续发展目标8：“促进持久、包容性和可持续经济增长，促进充分的生产性就业，促进人人有体面工作。”

持久包容的经济增长可以推动进步，创造体面的工作，提高生活水平。正如《2019年可持续发展目标报告》所示，全球范围内实际人均国内生产总值和劳动生产率都在增长，失业率已经回落到金融危机前的水平。然而，总体增长缓慢促使人们重新思考经济和社会政策，以实现目标8的转型目标，以实现欠发达国家的经济增长目标；增加就业机会，特别是年轻人的就业机会；减少地区之间、年龄之间和性别之间的不平等；减少非正规就业；为所有劳动者营造安全可靠的工作环境。

# THE COMING YEARS WILL BE A VITAL PERIOD TO SAVE THE PLANET AND TO ACHIEVE SUSTAINABLE, INCLUSIVE HUMAN DEVELOPMENT.

**António Guterres**  
Secretary-General of the United Nations  
安东尼奥·古特雷斯  
联合国秘书长

今后几年将是拯救地球，实现可持续和包容的人类发展的关键时期。

productivity have increased globally, and unemployment has dropped back to pre-financial-crisis levels. However, sluggish growth overall has prompted a rethinking of economic and social policies to achieve the transformational objectives of Goal 8 so as to meet economic growth targets in least developed countries; increase employment opportunities, especially for young people; reduce inequalities across regions, age groups and genders; decrease informal employment; and promote safe and secure working environments for all workers.

When looking at the data regarding Goal 8, the SDG Report 2019 clearly shows how economic growth in least developed countries is again on the upswing, but the 7% SDG target is still out of reach.

If on one hand labour productivity in 2018 increased by 2.1% over 2017 data (the highest annual growth since 2010, although wide disparities can be found among regions), median hourly pay for men is still 12% higher than for women — as a glaring reminder of gender inequality — and informal employment remains a major challenge in reaching the goal of decent work for all.

Furthermore, one of the most preoccupying pieces of data is that one fifth of young people are not engaged in either education, employment or training (NEET). The situation is most serious in Central and Southern Asia and in Northern African and Western Asia, where more than one quarter of youth fall into this category.

Gender differences in this regard are pervasive. In 2018, young women were more than twice as likely as young men to be unemployed or outside the labour force and not in school or any training programme.

With goal 8 as a thematic anchor, we therefore decided to focus this issue of our editorial endeavor on intellectual opinions, debates and case studies that put the human at the center of any type of discussion and solution with a strong focus on inclusion.

在查看有关目标8的数据时，《2019年可持续发展目标报告》清楚显示出，欠发达国家的经济增长再次呈上升趋势，但7%的可持续发展目标仍然遥不可及。

一方面，2018年劳动生产率较2017年增长2.1%（这是自2010年以来最高的年增长率，尽管各地区之间存在巨大差异）；另一方面，男性的平均时薪仍比女性高出12%（不容忽视地提醒着性别不平等），而非正规就业仍然是实现人人有体面工作目标的一个重大挑战。

此外，最醒目的数据之一是，五分之一的年轻人属于“尼特族”（不升学、不就业、不进修或参加就业辅导的社会族群）。中亚和南亚以及北非和西亚的情况最为严重，超过四分之一的青年属于这一族群。

这方面的性别差异也普遍存在。在2018年，年轻女性失业或失业的可能性是年轻男性的两倍多，她们没有工作，也没有上学或接受任何就业辅导。

因此，我们决定以目标8作为主题，把我们的编辑工作重点放在思维见解、辩论和个案研究上，在每一次辩论和问题解决中以人为本，并将重点放在包容性上。

同时，正如穆甘迪·姆托瑞达教授在本期专访中所说，“变化是不可避免的，但并非所有的变化都是有益的。”我们试图探讨科学和技术创新问题，特别着眼于此类创新如何与人类和工作相联系，以期带来积极的社会变革。

本期主要版块包括“大背景”“微格局”“中

Also, as well stated by Professor Mugendi M'Rithaa in an original interview for this issue, as "change is inevitable, but not all change is beneficial" we have tried to address scientific and technological innovation focusing especially on how such innovation connects to humans and work, in an attempt to bring positive societal change.

The main chapters of this issue — The Big Picture, The Small Picture, China Logs, Serial Innovators — constitute the core discursive receptacles staging dialogue between world-views and localized insights, by introducing Chinese perspectives of relevance for their responsive capacity to shared global challenges and ambitions.

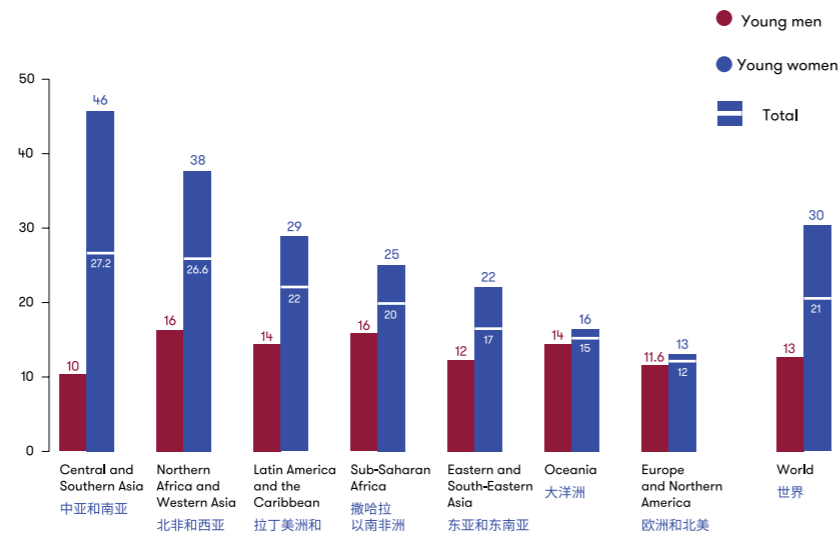
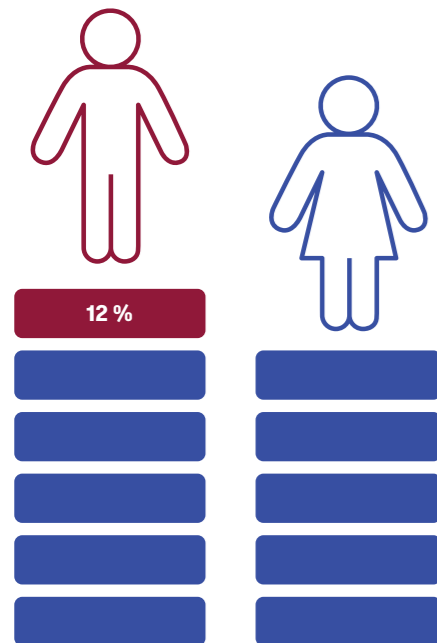
For the Visualize Me section, which acts as a visual crevasse within the journal, we chose to focus on Beijing-based university students' work in addressing the topics of value, and place making.

We have arranged the articles in a way that should keep bringing the reader to more intimate, social challenges and core discussion on the future of work, fast-forward the debate to technological innovation and possibilities, and then anchor insight in practical case studies that address crucial social poverty alleviation stories or inclusion challenges. And then on again in an intellectual thread that opens another question, fast-forwarding you into a technological debate and landing you in a field of local case studies.

We portray the voices of institutions, academia, corporations, grassroots society organizations and individuals alike, as it is only through the engagement of all stakeholders that real long-lasting change can be made possible globally. ■

**Sarah Orlando**

**Median hourly pay of men is 12% HIGHER than that of women**  
男性比女性的平均时薪高 12%



**Proportion of youth not in education, employment or training, by sex, 2018 (percentage)**  
2018年按性别分列的未就业、接受教育或培训的青年百分比

**萨拉·奥兰多**

国日志”“对话创新者”，它们共同构成了一个包容万象的核心容器，首先呈现了世界观点与本土洞见之间的对话，继之以中国在相关问题上的视角，展示这个国家应对全球共同挑战的能力与抱负。

在起视觉间歇作用的“文化视觉”版块中，我们重点呈现了北京一所大学的学生围绕价值和场所营造主题所做的作品。

我们通过合理安排这些文章，先将读者带入更亲密、更社会性的挑战及对工作的未来更核心的讨论，随即讨论迅速推进到关于技术创新及其可能性方面，然后围绕解决关键的社会贫困问题或包容性挑战的实际案例研究，展开深入的讨论。最后，再展开另一个问题的知识线，快速地引导读者进入技术辩论，直至最终落在关于本地案例的研究上。

我们传达机构、学术界、企业、基层社会组织和个人声音，因为只有通过所有利益相关者的共同参与，才有可能在全球范围内实现真正持久的变革。■



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# The Big Picture



## The Challenging Future of Work in a Fast-Changing World

By **Jean-Louis Turlin**  
former New York correspondent for Le Figaro

Dazzling changes in the world economy bring to mind what former President Bill Clinton said about the reform of the American welfare system: indeed, we could be witnessing the end of work “as we know it”.

We now live in a digitized world where new technologies pose challenges as much as, or more than, they offer opportunities. “Promises and perils of artificial intelligence are reshaping our economic, social and political world”. Such was the theme of a recent debate at Stanford University, in the heart of the Silicon Valley. In his introduction to the discussion, Professor Rob Reich asked: “What is the future of work when millions of jobs can be automated?”, before wondering about the future of the human species in a world dominated by machines.

In other words, what is the place of man in a fully integrated technological environment? Will the very concept of the average worker still be relevant? “Much about the resentment in the world today (...) is not about present-day difficulties. It’s about people looking to the future and realizing the future does not need them”, said the philosopher and social critic Yuval Harari in an interview with Steve Paulson for Nautilus.

This is why the Global Commission on the Future of Work, set up by the International Labour Organization (ILO), proposes “a human-centered agenda (...) that strengthens the social contract by placing people and the work they do at the centre of economic and social policy and business practice”. Such is the necessary premise to achieve number 8 of the 17 Sustainable Development Goals

adopted by the United Nations: “Promote inclusive and sustainable economic growth, employment and decent work for all”. Target 5 is even more explicit: “By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value”.

The challenges to take up can be daunting. Let’s consider one of the most pressing ones, as enunciated by the Global Commission: “Technological advances — artificial intelligence, automation and robotics — will create new jobs, but those who lose their jobs in this transition may be the least equipped to seize the new job opportunities (...) The skills of today will not match the jobs of tomorrow and newly acquired skills may quickly become obsolete”.

The remedy is obvious: a human-centered agenda “means investing in people’s capabilities, enabling them to acquire skills, re-skill and up-skill and supporting them through the various transitions they will face over their life course”. It also means “investing in the institutions of work to ensure a future of work with freedom, dignity, economic security and equality” and “harnessing transformative technologies, demographic opportunities and the green economy”.

Commenting on the analysis of the Global Commission in an article for Project Syndicate, Guy Rider and Richard Samans point out that “growth alone is not enough to reduce the increased inequality and insecurity accompanying the transformation of work”. This is particularly true in the face of targets unmet in this area.

In his report on progress of goal 8 in 2019, the UN Secretary General notes that the global rate of real GDP per capita “is expected to remain at about 2 per cent from 2018 to 2020”, which is “significantly less than the 3 per cent attained in 2010”, and that the growth rate in the least developed countries is expected to reach 5.7 per cent in 2020, “which is less than the 7 per cent envisioned by the 2030 agenda”.

As Rider and Samans see it, “it is by upgrading their social contracts and better equipping their citizens to navigate the world of work that countries can most effectively boost their economic growth and development”. Insufficient on its own, growth remains essential to guaranteeing decent working conditions in the new world economy.

Much remains to be done. An “adequate living wage” — as stipulated in the ILO Constitution of 1919 —, maximum limits on working hours and protection of safety and health at work are usually excluded in an “informal” economy, in which jobs and workers are not regulated or protected by the state. The Secretary General report shows that “more than half of all persons employed in non-agriculture sectors are in informal employment”. It affirms that “more progress is needed” in this sector as well as in the creation of job opportunities for young people and the elimination of the gender gap.

The future of work will be shaped by our ability to adjust to the demands of a fast-changing world economy while preserving the fundamental human rights as we know them in a decent work environment. ■

# 工作的未来何在

作者:让·路易·特林  
(法国《费加罗报》前驻纽约记者)

全球经济中令人眼花缭乱的变化让人想起美国前总统比尔·克林顿在谈到美国社会福利制度改革时的断言:事实上,我们可能正在目睹“我们所知的”工作的消亡。

现在我们生活在一个数字化的世界里,新型技术带来的挑战和它们提供的机会一样多,甚至更多。在位处硅谷中心的斯坦福大学,近期举办了一场辩论,主题就是“人工智能的承诺和风险正在重塑我们的经济、社会和政治世界”。在开场导言中,罗布·赖克教授首先发问:“当数以百万计的工作可以被自动化时,工作的未来何在?”继而又开始思考在以机器为主导的世界里人类物种的命运。

换句话说,人类在一个完全集成的技术环境中的地位何在?普通劳动者的概念是否还有意义?哲学家、社会评论家尤瓦尔·哈拉里在接受史蒂夫·保尔森的采访(发表在“鸚鵡螺”上)时表示:“对当今世界的极度不满……不是针对现在的困难,而是人们展望未来,意识到未来并不需要他们。”

这就是为什么国际劳工组织(ILO)设立的全球工作未来委员会提出“以人为本的议程……把人和人所做的工作放在经济、社会政策和商业实践的中心,以此来加强社会契约”。这是实现联合国通过的17项可持续发展目标中的第8项的必要前提:“促进包容性和可持续的经济增长、就业和人人享有体面的工作”。目标5更加明确:“到2030年,实现包括青年和残疾人在内的所有人的充分就业和体面工作,并且实现同工同酬”。

要应对的挑战是艰巨的。让我们来考虑全球委员会提出的其中一个最紧迫的问题:“技术进步——人工智能、自动化和机器人技术——将创造新的工作机会,但在这种过渡中失去工作的人们可能最不具备抓住新工作机会的能力……现有的技能与未来的工作不匹配,那么新获得的技能很快就会被淘汰。”

补救的办法显而易见:以人为本的议程“意味着对于人的能力的投资,使他们能够获得技能、再充实技

能以及提升技能,意味着要支持他们在人生历程中遭遇的各种转变。”它也意味着“要对工作机构进行投资,以确保未来的工作自由、有尊严、有经济保障和平等”,以及要“利用革新性技术、人口机遇和绿色经济”。

在发表在“报业辛迪加”专栏的一篇文章中,盖伊·瑞德和理查德·萨曼斯对全球委员会的分析作出评论,指出“增长本身不足以降低伴随着工作转型而加剧的不平等和不安定现象”。对于这一领域内的未实现目标,情况尤其如此。

联合国秘书长在其关于2019年目标8进展的报告中指出,全球人均实际GDP“预计在2018年至2020年期间保持在2%左右”,“远低于2010年达到的3%”,最不发达国家的增长率预计将在2020年达到5.7%，“低于《2030议程》预计的7%”。

在瑞德和萨曼斯看来,“只有提升社会契约、更好地培养本国公民驾驭工作世界的的能力,各国才能最为有效地促进经济增长和发展。”尽管增长

本身微不足道,但是其在保证新全球经济局势下的体面工作条件方面仍然起着至关重要的作用。

还有许多问题有待解决。1919年《国际劳工组织章程》中明确要求的“足够的生活报酬”,以及最长工作时间限制和工作安全及健康保障,通常都不包括在“非正式”经济中,在此经济形态中工作和工人都受国家的制约或保护。秘书长的报告显示,“在所有非农业部门的雇用人员中,有一半以上从事非正式就业”。这说明,在这一领域以及在为年轻人创造就业机会和消除性别差距方面,还“需要更多改进”。

工作的未来取决于我们,取决于我们是否有能力适应快速变化的全球经济所提出的新要求,同时又能维持在体面环境中工作的基本人权。■

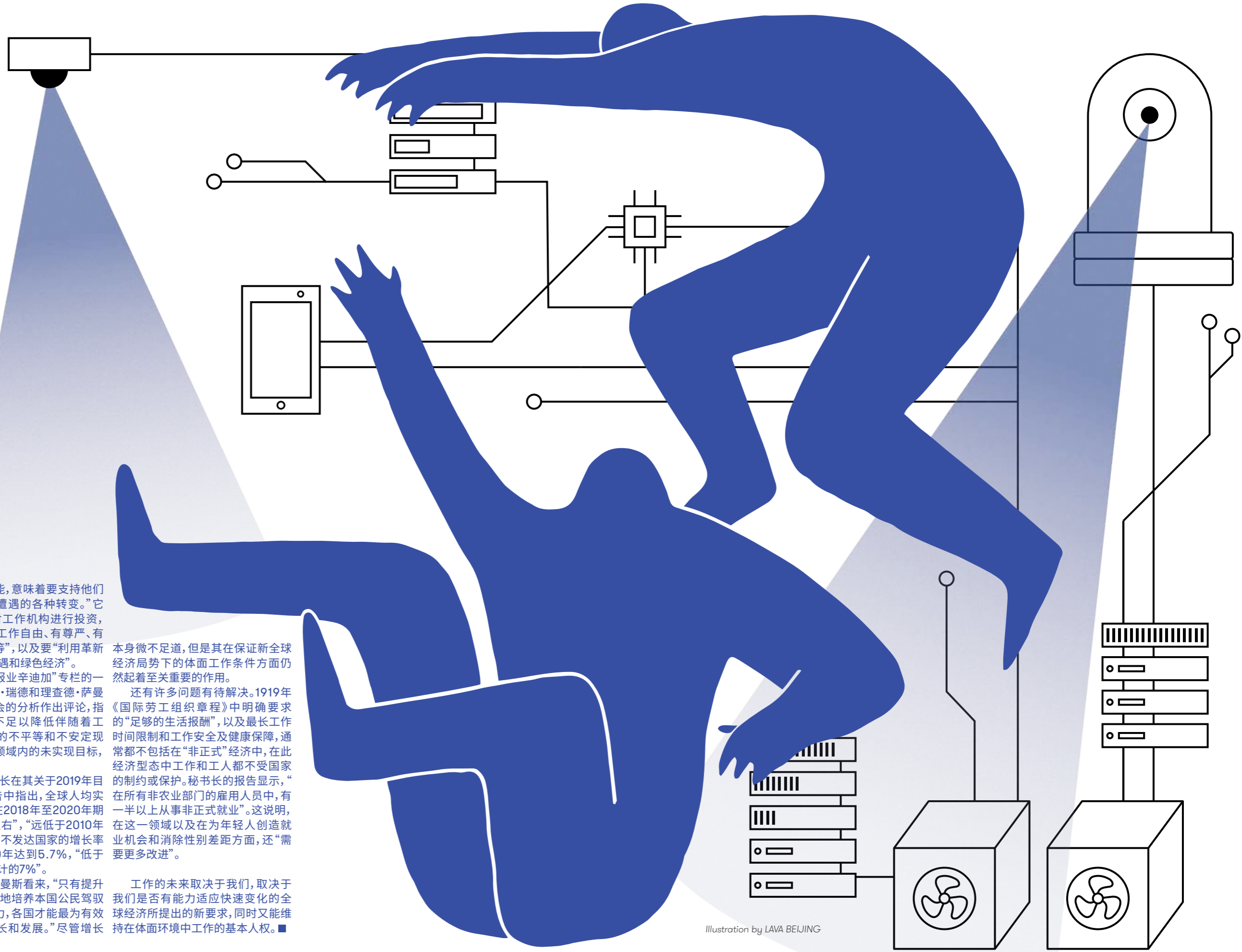


Illustration by LAVA BEIJING



# Toward People-Centered Growth

## 向着以人为本的 增长迈进

By **Guy Ryder** and **Richard Samans**  
盖伊·莱德、理查德·萨曼斯

GENEVA—Growth is decelerating in Europe, the United States, China, Japan, and other leading economies, as the International Monetary Fund and World Bank recently highlighted by revising their global forecasts for this year substantially downward. At the same time, political and business leaders know they need to do more to prepare workforces for the labor market in an age of rising automation, stagnant wages, and greater part-time, temporary, and contingent employment.

These two challenges—reinvigorating economic growth and preparing people for the future of work—are linked, but not necessarily in the conventional sense that macroeconomic stimulus or improved efficiency constitutes the best way to create job opportunities and raise living standards. The experience of recent decades shows that growth alone is not enough to reduce the increased inequality and insecurity accompanying the transformation of work. Moreover, high debt levels and historically low interest rates have left policymakers with fewer traditional tools to stimulate the economy in the event of another recession.

In this new era, government and business leaders need to view the relationship between growth and labor markets the other way around. It is by upgrading their social contracts and better equipping their citizens to navigate the world of work that countries can most effectively boost their economic growth and development.

That is the conclusion recently reached by an independent Global Commission on the Future of Work, organized by the International Labour Organization and co-chaired by South African President Cyril Ramaphosa and Swedish Prime Minister Stefan Löfven.

The commission recommended three practical steps—all of which involve investing more in people—that countries can take to improve social inclusion and economic growth simultaneously. Investing more in people is not only

发自日内瓦—欧洲、美国、中国、日本和其他主要经济体的增长都在下降放缓，而国际货币基金组织和世界银行将今年全球增长预测大幅下调的举措也证实了这一点。与此同时，政商界领袖都意识到在这个在自动化程度不断提高，工资增长停滞不前，兼职、短期和临时工作日益增加的时代，他们需要更多工作来让劳动者群体足以应对。

这两个挑战——重振经济增长以及让人们对未来工作做好准备——是相互关联的，但并不一定是传统意义上那种将宏观经济刺激或提高效率视为创造就业机会和提高生活水平最佳途径的方式。近几十年的经验表明，仅靠增长还不足以缓解工作转型所引发的不平等加剧和不安感。此外在高债务水平和史无前例的低利率之下，政策制定者在经济再次衰退时手里也没几个传统经济刺激工具可供调用。

在这个新时代，政府和企业领导者需要从另一个角度来看待增长与劳动力市场之间的关系。各国如果想要最有效地促进经济增长和发展，只有通过升级本国的社会契约并在未来的就业环境中更好地武装自己的民众。

而这就是由国际劳工组织召集建立的，由南非总统西里尔·拉马福萨 (Cyril Ramaphosa) 和瑞典首相斯特凡·勒文 (Stefan Löfven) 共同主持的独立未来工作全球委员会最近得出的结论。

该委员会建议各国可以采取三个实际步骤，以同时提升社会包容性和经济增长，这几个步骤都涉及对民众进行更多投资。

在这个技术迅速变革的时代，更多地投资于民众不仅对强化各国与公民之间的社会契约至关重要，还可以构建一种新的、更加以人为本的增长和发展模式的基础，在许多国家依赖数年甚至数十年的两大增长引擎——非常规宏观经济刺激以及出口导向型工业生产——继续失去动力之时，这种模式可能是维持世界经济发展势头的最佳希望。

首先，各国应增加对其公民能力的公共和私人投资，而这也是它们能够持久提高自身生产增长率的最重要方式。一些政府在获取优质教育渠道和技能开发方面长期投资不足，但随着人口老龄化和自动化破坏了发展中经济体传统上赖以实现工业化的制造业以

essential to strengthen countries' social contracts with citizens at a time of rapid technological change. It can also form the basis of a new, more human-centered growth and development model that may be the best hope for sustaining the world economy's momentum as the two growth engines on which many countries have relied for years or even decades—extraordinary macroeconomic stimulus and export-led industrial production—continue to lose steam.

First, countries should increase public and private investment in their citizens' capabilities, which is the most important way they can durably lift their rate of productivity growth. Some governments chronically underinvest in access to quality education and skills development. But policymakers everywhere need to do more as populations age and automation disrupts both manufacturing, on which developing economies have traditionally relied to industrialize, and services, in which much advanced-economy employment is concentrated. The commission therefore called on countries to build a universal framework to support lifelong learning—including stronger and better-financed labor-market training and adjustment policies, expanded public employment services, and a universal social-protection floor.

Second, governments, together with employers' and workers' organizations, should upgrade national rules and institutions relating to work. These influence the quantity and distribution of job opportunities and compensation, and thus the level of purchasing power and aggregate demand within the economy.

及先进经济就业大量集中的服务业，各地的政策制定者需要做得更多。因此该委员会呼吁各国建立一个支持终身学习的总体框架——包括更强大且资金更充足的劳动力市场培训和调整政策，扩大公共就业服务的范围，并设置一个全民性的社会保护底线。

其次，政府应与雇主组织和劳动者组织一起升级与工作有关的国家规则和机制。这些规则和机制会影响就业机会和补偿的数量和分布，进而左右经济内部的购买力和总需求水平。

Illustration by LAVA BEIJING



Specifically, the commission called for a Universal Labor Guarantee under which all workers, regardless of their contractual arrangement or employment status, would enjoy fundamental rights, an “adequate living wage” as defined in the ILO’s founding constitution 100 years ago, maximum limits on working hours, and health and safety protection at work.

Moreover, collective representation of workers and employers through structured social dialogue should be ensured as a public good and actively promoted by government policies. From parental leave to public services, policies need to encourage the sharing of unpaid care work in the home to support gender equality in the workplace. Strengthening female voices and leadership, eliminating violence and harassment at work, and implementing pay transparency policies are also important in this regard.

Third, countries should increase public and private investment in labor-intensive economic sectors that generate wider benefits for society. These include sustainable water, energy, digital, and transport infrastructure, care sectors, the rural economy, and education and training. The Business and Sustainable Development Commission has estimated that achieving the UN Sustainable Development Goals could generate \$12 trillion of market opportunities in four areas alone—food and agriculture, cities, energy and materials, and health and wellbeing—and create up to 380 million jobs by 2030. Capitalizing on these possibilities could help countries to compensate for the labor-displacing and potentially demand-suppressing effects of automation and economic integration.

These three steps constitute a strategy for all countries, regardless of their level of economic development, to strengthen both social justice and economic growth—and, by extension, public faith in political institutions.

In the heat of the financial crisis a decade ago, leaders of G20 countries pledged to build a more balanced and sustainable growth model that embodied lessons from the economic imbalances and policy mistakes of the past. The world has since made little progress toward realizing this goal. But the path it must take is clear: sustained, increased investment in people’s capabilities, purchasing power, and job opportunities. ■

**INVESTING MORE  
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RAPID TECHNOLOGICAL  
CHANGE.**

**Guy Ryder** is Director-General of the International Labour Organization, which organized the Global Commission on the Future of Work.

**Richard Samans** is Managing Director for Policy and Institutional Impact at the World Economic Forum and a member of the Global Commission on the Future of Work.

**盖伊·莱德**,  
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**理查德·萨曼斯**,  
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项目主任,未来工作全球委员会  
委员。

具体而言,该委员会呼吁实行普遍劳动保障,根据该制度,所有劳动者(无论其合同安排或就业状况如何)都享有多项基本权利,包括100年前国际劳工组织创始宪法规定的“适当生活工资”,设立工作时限并拥有就业时的健康和安全保护。

此外,应通过有组织的社会对话来实现劳动者和雇主集体代表制,确保其成为一种公共产品并由政府政策积极推动。从育儿假到公共服务,政策需要鼓励在家中分担无偿护理工作以支持工作场所的性别平等。在这方面,加强女性的声音和领导能力,消灭工作中的暴力和骚扰,以及实施薪酬透明度政策也很重要。

第三,各国应增加对劳动密集型经济部门的公共和私人投资,从而为社会带来更广泛的利益。其中包括可持续的水、能源、数字技术和运输基础设施、护理行业,农村经济以及教育和培训。商业和可持续发展委员会估计实现联合国可持续发展目标仅仅在四个领域(粮食和农业、城市、能源和材料、健康和福祉)就可以产生12万亿美元的市场机会,并在2030年时创造多达3.8亿个就业岗位。如果能开发好这些可能性,就可以帮助各国弥补自动化和经济一体化所产生的劳动力错位和潜在需求抑制效应。

这三个步骤构成了一个适用于所有国家的战略,无论其经济发展水平如何,都要强化社会公正和经济增长,进而加强公众对政治体制的信心。

在十年前的金融危机中,G20国家的领导人承诺会在过去的经济失衡和政策错误的教训之上构建起一个更加平衡且可持续的增长模式。虽然世界自那以后在实现这一目标方面进展甚微,但它必须采取的道路非常明确,那就是:持续增加对民众能力、购买力和就业机会的投资。■

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# Work for a Brighter Future

应国际劳工组织总干事盖·莱德先生的邀约,“劳动世界的未来全球委员会”于2017年10月成立。2019年1月,该委员会发表了一份关于未来工作的深入报告,题为《为了更加美好的未来而工作》。

该报告包含了一系列建议,曾在2019年的G20劳工就业部长会议(9月1日至2日于日本爱媛县松山举行)上被讨论。

As Guy Ryder, ILO’s Director-General states on its website, “The G20 clearly recognizes the urgency of addressing the multitude of challenges we face in this rapidly changing world of work. The commitment to adopting human-centred policies for the promotion of decent work is key”, said.

In the Work for a Brighter Future report, the key out-take is the importance of a human-centred agenda to face tomorrow’s challenges.

“Unless we focus on a human-centered policy framework, social inequalities will only become more evident in the future”.

We are facing one of the most important challenges of our times, as fundamental and disruptive changes in working life inherently affect our entire societies.

Technological advances — artificial intelligence, automation and robotics — will create new jobs, but

will also make many of today’s skills obsolete” if not useless.

Transitioning towards a greening economy which respects the planet and seeks to arrest climate change will disrupt labour markets even further, and ageing populations will place additional strain on social security and care systems.

“Yet we are also faced with remarkable opportunities.

Advances in technology are not only expanding choices about where and when to work, but are also creating new and better jobs. Lowering our carbon footprint offers tremendous opportunities to meet growth, development and employment needs and improve rural livelihoods.

Ensuring that women can thrive in the workforce will unleash new potential and boost economic growth. With access to education, training and technologies, rural communities can transform themselves. If older people

The Global Commission for the Future of Work, established in October 2017 at the invitation of Guy Ryder, Director General of ILO, in January 2019 published a fundamental report addressing the Future of Work, named “Work for a Brighter Future”.

The report contains a series of suggestions that were also part of the discussion in this year’s G20 Labour and Employment Minister’s meeting, held in Matsuyama, Ehime, Japan on September 1-2 2019.

## 为了更加美好的未来而工作

can remain active and engaged, they will enrich society and the economy through their skills and experience. Empowering young people to reach their full potential and access emerging opportunities will make them tomorrow’s agents of change”.

The human-centred agenda consists of three pillars of increased investment — in people’s capabilities, in the institutions of work, and in decent and sustainable work. It is the combination of the three pillars of action that would drive growth, equity and sustainability for present and future generations.

“First, it means investing in people’s capabilities, enabling them to acquire skills, reskill and upskill and supporting them through the various transitions they will face over their life course.

Second, investing in the institutions of work to ensure a future of work with freedom, dignity, economic security and equality.



Third, investing in decent and sustainable work and shaping rules and incentives so as to align economic and social policy and business practice with this agenda.

By harnessing transformative technologies, demographic opportunities and the green economy, these investments can be powerful drivers of equity and sustainability for the present and future generations”.



正如国际劳工组织总干事盖·莱德先生在其网站上所言：“G20清楚地认识到，在这个瞬息万变的工作世界中，我们亟须应对众多挑战。承诺采取以人为本的政策以促进体面劳动是关键。”

《为了更加美好的未来而工作》报告指出，关键的考虑因素是人为本的议程对于应对未来挑战的重要性。

“除非我们把重点放在以人为本的政策框架上，否则社会不平等在未来只会愈演愈烈。”

我们正面临着这个时代最重要的挑战之一，因为工作生活中的根本性及破坏性变化在本质上影响着整个社会。技术进步——人工智能、自动化和机器人技术——将创造新的工作机会，但也会使现在的许多技能显得过时甚至被全然淘汰。向尊重地球并寻求遏制气候变化的绿色经济过渡将进一步扰乱劳动力市场，人口老龄化也将给社会保障和医疗体系带来额外压力。

“然而，我们也迎来了巨大机遇。

科技的进步不仅扩大了工作地点和时间的选择，也创造了新的更好的就业岗位。降低碳足迹为满足增长、发展和就业需求以及改善农村生计提供了巨大的机会。确保女性在劳动力大军中的茁壮成长，将释放新的潜力并促进经济增长。通过接受教育、培训和学习技术，农村社区可以实现自我改造。老年群体如果能够积极投入、保持活力，将通过自己的技能和经验丰富社会，实现经济增长。只要赋予年轻人充分发挥潜能和获得新机会的能力，他们就将成为未来变革的代理人。”

以人为本的议程包括增加投资的三大支柱：对人的能力的投资、对劳动机制的投资、对体面和可持续劳动的投资。这一议程是三大行动支柱的结合，是推动当前和未来几代人实现增长、公平和可持续性的强大动力。

“首先，它意味着对人的能力的投资，使其获得技能开发、技能更新和技能提升，并支持人们完成生命历程中将要面临的各种过渡。其次是对劳动机制的投资，以确保劳动世界的未来拥有自由、尊严、经济保障和平等。第三，对体面和可持续劳动的投资，制定规则和激励措施，使经济、社会政策及商业实践与这个议程保持一致。通过利用技术变革、人口机遇和绿色经济，这些投资可以成为当前及子孙后代平等和可持续发展的强大动力。”



**344**  
MILLION JOBS

**Employment**

344 million jobs need to be created by 2030, in addition to the 190 million jobs needed to address unemployment today.

ILO Economic Trends Model (May 2018)

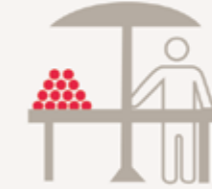


**190**  
MILLION PEOPLE

**Unemployment**

190 million people are unemployed, of whom 64.8 million are youth.

ILO, 2018b



**2**  
BILLION PEOPLE

**Informal employment**

2 billion people make their living in the informal economy.

ILO, 2018a



**300**  
MILLION PEOPLE

**Working poverty**

300 million workers live in extreme poverty (<\$1.90/day).

ILO, 2018b



**2.78**  
MILLION PEOPLE

**Fatal work-related injuries and illnesses**

2.78 million people die every year as a result of occupational accidents or work-related illnesses.

ILO, 2018b



**36.1%**

**Working time**

36.1% of global workforce works excessive hours (more than 48 hours per week).

Messenger, 2018



**1.8%**

**Wages**

Wage growth declined from 2.4% to 1.8% between 2016 and 2017.

ILO, 2018d



**20%**

**Gender pay gap**

Women are paid around 20% less than men.

ILO, 2018d



**1%**

**Inequality**

Between 1980 and 2016, the richest 1% of the world's population received 27% of global income growth whereas the poorest 50% received only 12%.

Alvaredo et al., 2018



**53.6%**

**Digital divide**

Only 53.6% of all households have internet access. In emerging countries, the share is only 15%.

ITU, 2017



**3.44亿  
工作岗位**

**就业**

解决今天的失业问题需创造1.9亿个工作岗位，除此以外，至2030年，还需创造3.44亿个工作岗位。

国际劳工组织经济趋势模型 (2018年5月)



**1.9亿人**

**失业**

失业人口达1.9亿，其中6480万为青年。

国际劳工组织, 2018b



**20亿人**

**非正规就业**

20亿人依靠非正规经济维持生活。

国际劳工组织, 2018a



**3亿人**

**工作贫困**

3亿人生活在极度贫困中（每天不足1.9美元）。

国际劳工组织, 2018b



**278万人**

**工伤和职业病死亡**

每年278万人死于工伤事故或职业病。

国际劳工组织, 2018b



**36.1%**

**工作时间**

36.1%的全球劳动力工作时间过长（每周超过48小时）。

Messenger, 2018



**1.8%**

**工资**

工资增长从2016年的2.4%下降至2017年的1.8%。

国际劳工组织, 2018d



**20%**

**性别收入差距**

女性比男性收入低约20%。

国际劳工组织, 2018d



**1%**

**不平等**

1980年至2016年，世界最富有的1%占全球收入增长的27%，而最贫穷的50%仅占12%。

Alvaredo等, 2018



**53.6%**

**数字鸿沟**

仅有53.6%的家庭拥有互联网接入。在新兴国家，这一比例仅为15%。

国际电信联盟, 2017

The key areas of investments in people's capabilities — according to the report — are:

**1. LIFELONG LEARNING:**

Governments, workers and employers, as well as educational institutions, have complementary responsibilities in building an effective and appropriately financed lifelong learning ecosystem, enabling people to acquire skills and to reskill and upskill.

**2. WORK TRANSITIONS:**

Young people will need help in navigating the increasingly difficult school to-work transition. Older workers will need expanded choices that enable them to remain economically active for as long as they choose and that will create a lifelong active society. All workers will need support through the increasing number of labour market transitions over the course of their lives.

**3. GENDER EQUALITY:**

From parental leave to investment in public care services, policies need to foster the sharing of unpaid care work in the home to create genuine equality of opportunity in the workplace. Strengthening women's voice and leadership, eliminating violence and harassment at work and implementing pay transparency policies are preconditions for gender equality. "Whether in the formal or informal economy, in government, workers' organisations, employers' organisations or co-operative ventures, women must be active participants in decision-making. We recommend that governments, employers, workers' organisations and employers' organisations actively pursue and support greater representation by women", reads the text.

**4. UNIVERSAL SOCIAL PROTECTION:**

based on the principles of solidarity and risk sharing, which supports people's needs over the life cycle.

Furthermore, ILO recommends transformative investments in decent and sustainable work, in line with the United Nations 2030 Agenda for Sustainable Development.

Such investments should advance gender equality and can create millions of jobs and new opportunities for micro-small and medium-sized enterprises.

The development of the rural economy, where the future of many of the world's workers lies, should become a priority. Directing investment to high-quality physical and digital infrastructure is necessary to close the divides and support high-value services.

Investments should be also concentrated in revising the measurement of long-term investments, and exploring supplementary indicators of human development and well-being. I.e. fiscal policies, corporate accounting standards, and enhancing stakeholder representation and changes in reporting practices.

New measures of country progress also need to be developed to account for the distributional dimensions of growth, the value of unpaid work performed in the service of households and communities and the externalities of economic activity, such as environmental degradation. ■

根据这份报告,对人的能力进行投资的主要领域包括:

**1. 终身学习:**

政府、工人和雇主以及教育机构肩负着建立有效、适当资助的终身学习生态系统的重大责任,使人们能够实现技能开发、技能更新和技能提升。

**2. 工作过渡:**

在日益艰难的从学校到职场的过渡时期,年轻人需要强有力的支持。需要扩大老年工人的选择,促使有意愿的人保持经济活跃,创造终身活跃型社会。所有劳动者在其一生中都将经历越发频繁的劳动力市场过渡,都将需要支持。

**3. 性别平等:**

从产假到公共医疗服务的投资,政策需要促进家庭中无偿照护工作的分工,以在工作场所中创造真正的机会平等。加强女性的话语权和领导力、消除工作中的暴力和骚扰、实施薪酬透明政策,是实现男女平等的先决条件。报告中写道:“无论在正式或非正式经济,无论在政府、工人组织、雇主组织或合作企业中,女性都必须积极参与决策。我们建议政府、雇主、工人组织和雇主组织积极促进和支持提高女性代表性。”

**4. 全面覆盖的社会保护:**

基于团结和风险共担的原则,满足人们整个生命周期中的需求。

此外,国际劳工组织建议按照《2030年联合国可持续发展议程》,在体面和可持续劳动上进行变革性投资。此类投资应促进性别平等,为微型中小企业创造数以百万计的新的就业机会。世界上许多工人的未来取决于农村经济的发展,发展农村经济应成为优先考虑的问题。须将投资引向高质量实体和数字基础设施,以消除鸿沟并为高附加值服务提供支持。投资也应集中于修订长期投资的计量标准,并探索衡量人类发展和福祉的补充指标,即财政政策、公司会计准则,并加强利益相关者的代表性,以及改变报告惯例。还需要制定新的措施衡量国家进步,将增长分配、为家庭和社区服务提供无偿劳动的价值以及环境恶化等经济活动的外部性纳入考量。

委员会最后评论称:“我们被要求予以考虑的问题才是重点。它们对世界各个角落的人和我们共同生存的地球都至关重要。虽然困难重重,但如果忽视这些问题,将会处于危险境地;如果可以提供正确的答案,我们将为劳动世界的未来参与者开辟非凡的新景象。” ■



# Is Love Hackable?

On April 24th 2019 Nicholas Thompson, WIRED Editor in Chief, moderated one of the most interesting discussions on the future of technology and the role it will have on humans.

Mr Thompson interviewed Yuval Noah Harari, a History Professor, philosopher, and author of three best-selling books about the history and future of our species (*Sapiens*, *Homo Deus*, *21 lessons for the 21st century*), and Fei-Fei Li, one of the pioneers in the field of artificial intelligence, currently Co-Director at Stanford Institute for Human-Centered Artificial Intelligence, former VP at Google.

The event was hosted by the Stanford Center for Ethics and Society, the Stanford Institute for Human-Centered Artificial Intelligence, and the Stanford Humanities Center.

As already shared in an interview on Nautilus Magazine on December 2018, it is clear that from Harari's perspective we are on the precipice of a revolution that will change humanity for either our everlasting benefit or destruction — it's not clear which. "For the first time in history", Harari said, "we have absolutely no idea how the world will look in 30 years".

And — as stated in another interview dating back to April 2018: "We are not just in a technological crisis. We are in a philosophical crisis".

According to Harari "in order to encapsulate what the crisis is, maybe I can try and formulate an equation to explain what's happening. And the equation is: B times C times D equals HH, which means biological knowledge multiplied by computing power, multiplied by data equals the ability to hack humans. And the AI revolution or crisis is not just AI, it's also biology. It's biotech.

Fei-Fei Li on the other hand, as an engineer, scientist, researcher and activist in the AI field with over 20 years of experience, feels compelled to solve the crisis. And so far, what is clear to her, is that research needs to move towards human-centred AI, and particularly transformative technology.

"We're not necessarily going to find a solution today, but can we involve the humanists, the philosophers, the historians, the political scientists, the economists, the ethicists, the legal scholars, the neuroscientists, the psychologists, and many more other disciplines into the study and development of AI in the next chapter, in the next phase", says Fei-Fei Li to Nicholas Thompson.

"The birth of AI is AI scientists talking to biologists, specifically neuroscientists, right. The birth of AI is very much inspired by what the brain does. Fast forward to 60 years later, today's AI is making great improvements in healthcare. There's a lot of data from our physiology and pathology being collected and using machine learning to help us".

It is also the time to open AI research to inclusion and diversity issues, and to raise important questions about regulations, ethics and data ownership.

Harari, on the other hand, is very worried for our souls. He fears especially that when AI starts to involve biologists in the research discussion, our hearts and brains might be hacked.

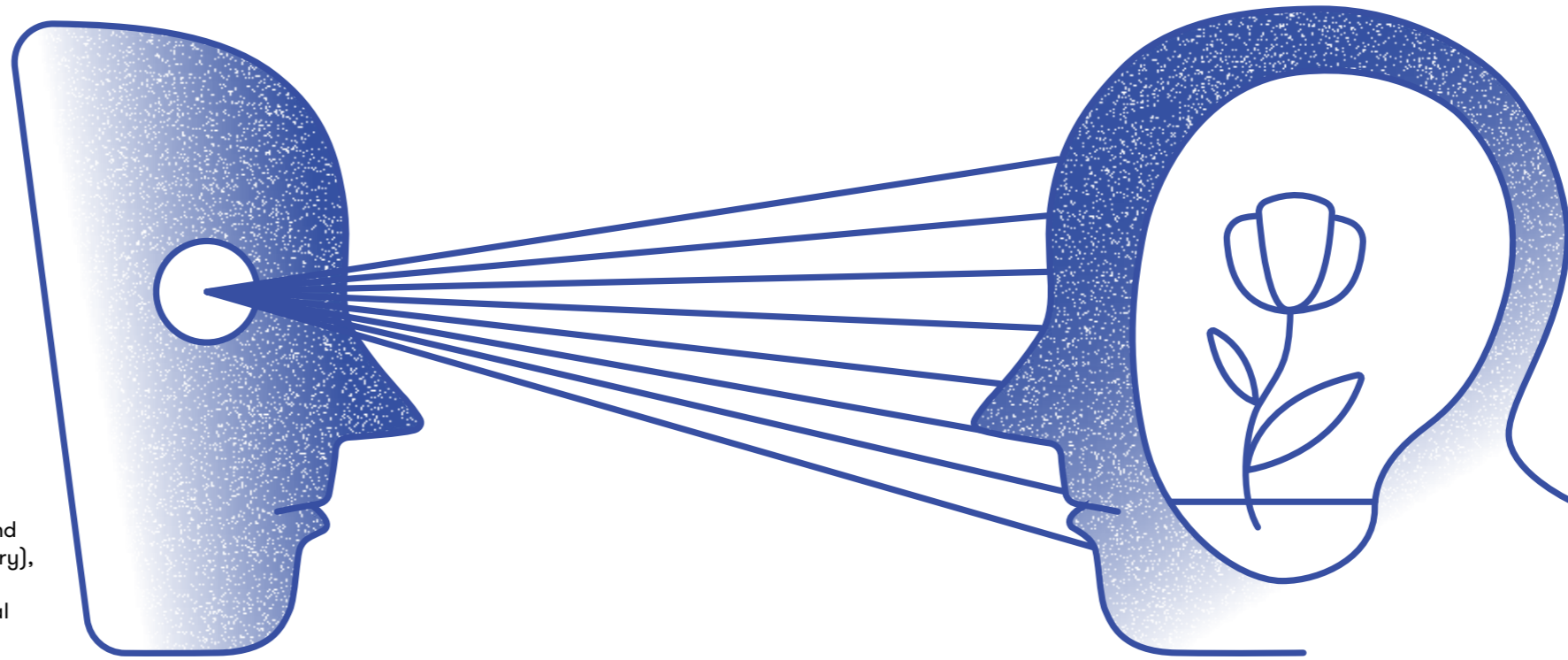


Illustration by LAVA BEIJING

## 爱, 能被黑吗?

2019年4月24日,《连线》杂志主编尼古拉斯·汤普森就科技的未来及其对人类的影响主持了一场十分有趣的讨论。

汤普森先生在活动中采访了尤瓦尔·诺亚·哈拉里和李飞飞。哈拉里是一位历史学教授、哲学家,著有《智人》《人类》《21世纪的21课》;李飞飞是全球人工智能领域的先驱者之一,现任斯坦福以人为本AI研究院的联合院长,曾任谷歌前副总裁。

该活动由斯坦福伦理与社会中心、斯坦福以人为本AI研究院和斯坦福人文中心共同主办。

正如他在2018年12月接受《鸚鵡螺》杂志采访时所说,在哈拉里看来,我们正处在一场革命的边缘,这场革命将永久性地改变人类——或将造福后世,或将万劫不复,目前尚不可知。哈拉里说:“这是人类有史以来第一次完全无从得知30年后世界会是什么样子。”

他还在2018年4月的另外一次采访中说:“我们陷入的不仅是一场技术危机,它还是一场哲学危机。”

根据哈拉里的观点,“为了概括这一危机到底是什么,我可以试着用一个方程式来解释,那就是: $B \times C \times D = HH$ 。它的意思是,生物知识(B)乘以计算能力(C)再乘以数据(D)就等于攻击人类(Hack Humans)的能力。而人工智能革命或称危机,不仅涉及人工智能,也涉及生物学。它是生物科技。”

Fei-Fei Li does not quite agree, and during the debate asks:

**FL: Is love hackable?**

**YNH: which kind of love are you referring to? if you're referring to Greek philosophical love or the loving kindness of Buddhism, that's one question, which I think is much more complicated. If you are referring to the biological, mammalian courtship rituals, then I think yes. I mean, why not? Why is it different from anything else that is happening in the body?**

**FL: But humans are humans because we're—there's some part of us that is beyond the mammalian courtship, right? Is that part hackable?**

That is the question without answer. ■

The discussion held at Stanford was fully transcript and published on Wired on April 28th 2019.

The video and the full transcript can be enjoyed here:

<https://www.wired.com/story/will-artificial-intelligence-enhance-hack-humanity/>

李飞飞作为一名在人工智能领域有着20多年经验的工程师、科学家、研究者和积极倡导者,觉得有责任、有必要解决这场危机。到目前为止,她很清楚一点:研究需要转向以人为本的人工智能,特别是在颠覆性技术方面。

“我们不一定在今天就能找到解决方案,但或许我们可以让人道主义者、哲学家、历史学家、政治学家、经济学家、伦理学家、法律学者、神经学家、心理学家,以及其他许多学科的科学家一起介入,共同参与下一章、下一个阶段的人工智能研究与发展,”李飞飞对尼古拉斯·汤普森说。

“人工智能的诞生,是人工智能科学家与生物学家特别是神经科学家对话的结果。它的诞生在很大程度上是受到大脑活动的启发。快进到60年后的今天,人工智能在医疗保健领域正在发挥着巨大的作用。我们收集了大量的生理学和病理学数据,并通过机器学习来帮助我们。”

现在也到了让人工智能研究更具包容性和多样性,同时开始提出并讨论有关法规、伦理和数据所有权等重要问题的时候。

另一方面,哈拉里在为人类的灵魂忧心。他尤其担心,当生物学家开始介入人工智能的研究与讨论时,人们的心脏和大脑可能会被黑客入侵。

李飞飞并不完全同意这一观点,她在辩论中间道:

李飞飞: 爱能被黑吗?

哈拉里: 你指的是哪一种爱?如果你指的是希腊哲学之爱或佛教之仁爱,那就是一个问题,我认为这个问题要复杂得多。如果你指的是生物学上的爱、哺乳动物的求爱仪式,那么我认为答案是肯定的。为什么不能呢?凭什么它和身体里发生的其他事不一样呢?

李飞飞: 但人类之所以身为人类,是因为我们——至少是我们的某些部分超越了哺乳动物的求爱层面,不是吗?那么这个部分也能被黑客技术侵入吗?

这恐怕是个无解之题。■

在斯坦福大学举办的这次讨论被全文记录并发表在2019年4月28日的《连线》杂志上。

讨论现场视频和完整文字记录可见于:

<https://www.wired.com/story/will-artificial-intelligence-enhance-hack-humanity/>

# Creative Disruption in Health Care and Education

## 医疗和教育中的 创造性破坏颠覆

By **Stephanie von Friedeburg**  
史蒂芬妮·冯·弗里德堡



WASHINGTON, DC — Governments are often more eager to invest in physical infrastructure — such as roads, bridges, and airports — than in human capital, through channels like health care, education, and skills training. This can be good politics, because it enables leaders to deliver concrete, visible results over the course of a few years. But the best way to ensure that economies grow and prosper in the long term is to ensure that citizens are healthy and educated.

With technology's continuing advance, this is becoming easier for governments to achieve. As the Fourth Industrial Revolution transforms some sectors (notably, manufacturing) and creates new fields (such as robotics, 3D printing, and autonomous vehicles), it is also enabling new approaches to health care and education.

Already, technology has proved effective for lowering costs, expanding access, and improving quality in both the education and health care fields. The Internet and mobile-phone technology have enabled scarce medical specialists to serve patients in remote places using telemedicine, and facilitated the rise of distance-learning university campuses, giving students everywhere access to professors who previously were available only to those in major cities or on university campuses.

Many individuals in developed countries have taken to wearing watches and bracelets that measure their activity, heart rate, and sleep quality. By fostering a greater awareness of their physical condition, such devices spur people to adopt healthier habits, potentially reducing their risk of chronic disease, a major contributor to health-care costs worldwide.

发自华盛顿—政府总是更加热衷于投资实体基础设施,比如公路、桥梁和机场等,而不是通过医疗、教育和技能培训等方式投资于人力资本。这也许是好政治,因为领导人能够在几年内实现具体的、可见的成果。但确保经济长期增长与繁荣的最佳办法乃是确保公民身体健康并接受教育。

随着技术的不断进步,政府要实现这一目标也变得越来越容易。第四次工业革命改变了一些行业(最主要的便是制造业),也创造了一些新领域(如机器人、3D打印和自动驾驶汽车),同时,它也实现了新的医疗和教育方针。

目前,技术已被证明能够有效降低教育和医疗领域的成本、扩大普及面,并改善质量。互联网和移动电话技术让稀缺的医学专家能够通过远程医疗服务于偏远地区病患,也促使远程教育崛起,让世界各地的学生都能聆听此前只在大城市或大学校园授课的教授的教诲。

发达国家的许多人已经穿上了能够监测身体活动、心率和睡眠质量的手表和手环。这些设备能让他们更加明白自己的身体状况,促使人们培养更健康的习惯,从而降低慢性病风险。慢性病是全世界医疗成本的一大主要来源。

但这些设备改善健康的潜力还不止于此,今天的创新者们正在使用尖端技术,在这些成功的基础上更进一步。和存放在医生个人办公室的传统病例不同,这些“可穿戴设备”所收集的数据能够被汇总和分析。这能改善诊断,同时有助于补偿医疗劳动力市场的技能短缺。

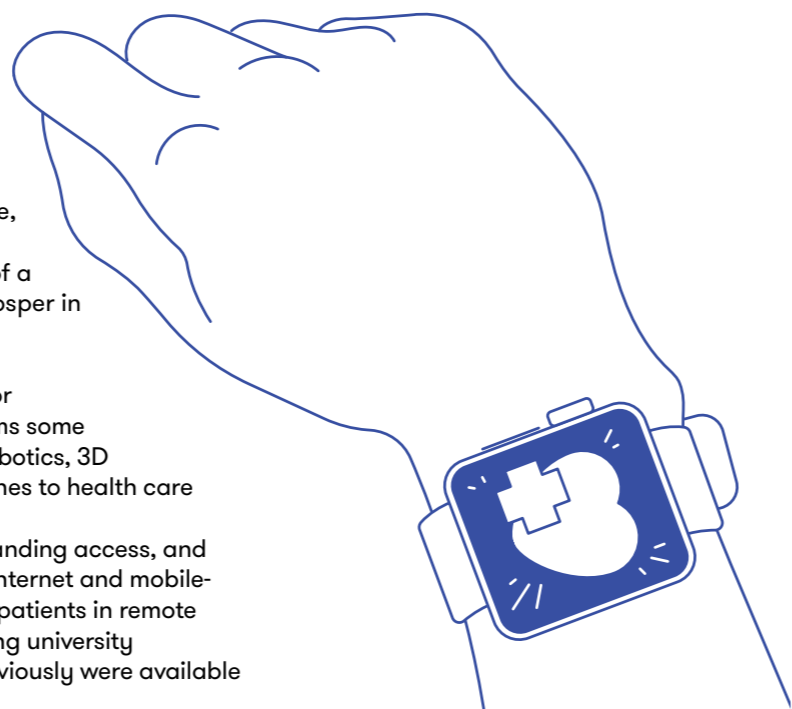


Illustration by  
LAVA BEIJING

But these devices have even greater potential to improve health, and today's innovators are using cutting-edge technology to build on these successes. Unlike traditional patient records, stored in individual doctors' offices, the data collected by such “wearables” are aggregated and analyzed. This can improve diagnostics, while helping to compensate for skills shortages in medical labor markets.

The Singapore-based company Tricog, for example, has developed algorithms to read electrocardiograms, flagging problem cases for doctors. This efficiency-boosting technology — which enables doctors to initiate treatment within minutes instead of hours — is already proving useful in India, where hospitals often suffer from a lack of trained cardiologists.

Big Data analytics and machine learning also enable greater personalization of health services. Among other things, these technologies can help in treating noncommunicable diseases like diabetes and cancer, which are fast becoming the biggest health-care challenge facing emerging economies.

Similarly, innovators in online learning — a \$165 billion sector that is growing by 5% per year — are using disruptive technologies like artificial intelligence to develop advanced tutoring tools and improve personalization. For example, BYJU'S, a learning app — and a client of the International Finance Corporation (IFC) — has taken advantage of new technologies to make high-quality math and science tutoring available to K-12 students who would otherwise be excluded because they live in remote areas or have limited mobility.

In higher education, Massive Open Online Course (MOOC) platforms offer the flexibility workers need to pursue the lifelong learning required by the twenty-first-century labor market. One such platform is Coursera (also an IFC client), which works with universities and other organizations to offer online courses.

After its launch in 2012, Coursera worked hard to expand into the developing world. By 2015, almost half of the platform's subscribers were located in emerging markets. Like other MOOC platforms, Coursera's business model continues to evolve; most recently, it added upskilling services for enterprises, and it has been forging partnerships with traditional campus-based institutions to develop online degrees.

Six years ago, when IFC, seeking to mobilize early financial support for startups offering products relevant to emerging markets, first dipped its toes in EdTech waters, the path to commercial sustainability was far from clear. Now, however, EdTech companies have successfully developed profitable, scalable business models that can be applied elsewhere.

Since its founding in 2011, for example, BYJU'S has become a major global player with more than two million subscribers, 30 million app downloads, and a valuation of over \$5 billion. As we work with the private sector to close gaps in access to quality health care and education in emerging economies, such success stories provide useful models.

Of course, using technology to transform education and health care carries some risks. Safeguarding the privacy of patient records and student test scores must be a top priority. And no one should think that AI-enabled diagnostic tools will displace doctors, or that online learning platforms should supplant teachers — especially when it comes to developing the socio-emotional skills that tomorrow's job market will demand.

But the potential benefits of disruptive technologies for economic growth, sustainability, and human wellbeing are simply too great to pass up. Considering the payoff from today's investments in these areas — particularly in the emerging economies — the risks are undoubtedly worth taking. ■

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员)首席运营官

比如,位于新加坡的Tricog公司开发了一种心电图读图算法,能够为医生标出问题。它让医生能够在几分钟,而非几小时内就进行初步治疗。这一提高效率的技术已在印度证明了它的作用。印度医院经常饱受经验丰富的心脏病专家短缺的困扰。

大数据分析和机器学习还实现了更大的医疗服务个性化。这些技术有助于治疗糖尿病和癌症等非传染性疾病,非传染性疾病正在迅速成为新兴经济体所面临的最大的医疗挑战。

类似地,在线学习创新者——创新学习已成为一个规模1650亿美元的行业,并以每年5%的速度增长——正在使用人工智能等颠覆破坏性技术开发先进教学工具,并改善个性化。比如,一款叫做BYJU'S的学习应用——它也是国际金融公司(IFC)客户——利用新技术普及高品质数学和科学教学,让K-12学生都能获得,而此前如果他们生活在偏远地区或缺少移动能力的话,就无法获得这些教育。

在高等教育领域,大规模开放在线课程(MOOC)平台为员工提供了学习灵活性,有助于他们追求21世纪劳动力市场所需要的终身学习。其中一个平台叫做Coursera(它也是IFC客户),其与大学和其他组织合作提供在线课程。

自2012年上线以来,Coursera便竭力进入发展中世界。到2015年,该平台近一半订阅用户来自新兴市场。和其他MOOC平台一样,Coursera的业务模式仍在不断演化;最近,它又增加了企业充电服务,同时,它也一直致力于与传统基于校园的机构合作开发在线学位。

六年前,为了动员金融资源支持提供与新兴市场相关的产品的初创企业,IFC首次试水教育科技,当时其商业可持续性还是个很大的未知数。但如今,教育科技公司成功地发展出可盈利、可扩展、可用于其他行业的业务模式。

比如,2011年成立以来,BYJU'S已成为全球主要企业,拥有两百多万订阅用户,3000万应用下载量,50亿美元以上的估值。我们正在与私人部门合作消除新兴经济体品质医疗和教育普及的缺口,这些成功故事提供了有用的榜样。

当然,用技术改变教育和医疗也会带来一些风险。保护病例和学生考试成绩隐私必须被列为重中之重。我们也不应该认为基于人工智能的诊断工具将能取代医生,或在线学习平台能够代替教师——特别是在提升未来发展未来就业市场所要求的社会心理技能方面。

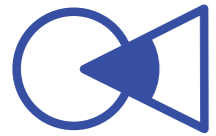
但颠覆性技术对经济增长、可持续性和人类福利等方面的潜在好处极大,不容忽视。若考虑今天对这些领域——特别是新兴经济体的这些领域——进行的投资的回报,那么其风险显然是值得承担的。■

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# Manifesto for Co-design for Health and Care

WE ARE ALL DIFFERENT, THEN WHY CARE FOR EVERYONE THE SAME?  
人各不同, 为什么要一刀切地使用同样的关照方式?



## 1 LISTEN AND OBSERVE

Co-design means creating a space where all opinions, competences and experiences count and are useful, it means to enact a process based on listening.

### 1 倾听与观察

协同设计意味着创造一个空间, 在这里所有的意见、技能和经验都很重要、都有价值; 它意味着在倾听的基础之上促发一个过程。

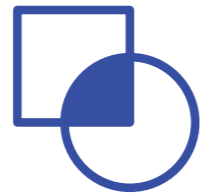


## 2 TEACH AND LEARN

We are all experts in something and reciprocal training is fundamental: doctors, designers and disabled individuals, experts in their condition, share knowledge and competences, which they intersect.

### 2 教授与学习

每个人都有擅长的领域, 因此相互学习至关重要: 医生、设计师以及对自身情况再清楚不过的残疾人士, 会分享知识和技能, 而这些知识和技能也是他们的交集所在。



## 3 SPEAK THE SAME LANGUAGE

In order to break down the wall of English-isms and technicalities of sectorial databases, in favor of a common language that everyone can understand.

### 3 讲同一种语言

为打破英语垄断和分类数据技术的壁垒, 我们支持使用一种人人都能理解的语言。



## 4 SHARE REAL NEEDS

The object is to resolve a necessary reality, small or large bears no importance, what counts is concentrating on the reason. The "how" comes later.

### 4 共享真实的需求

目标是解决一个必要的现实问题, 问题的大小无关紧要, 重点要集中在问题产生的原因上。怎样解决是随后要考虑的。



## 5 THINK AND DESIGN TOGETHER

Moments of sharing, exchange and design collective guide the group towards the final idea, stimulating everyone's creativity when it comes to devising new and innovative solutions able to address real needs.

### 5 一起思考, 一起设计

分享、交流和共同设计可以引导团队走向最终的理念, 可以在设计能够解决真实需求的新颖的创意方案时, 激发每个人的创造力。

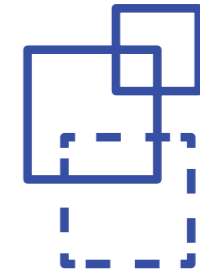


## 6 MATERIALIZE THE IDEA

The production of the first prototype thanks to software, digital fabrication technologies and rapid prototyping, allows us to touch, explore, and test the idea. And last but not least, customize it.

### 6 实现理念

借助软件、数字制造技术和快速成型技术而产生的第一个原型, 使我们能够触摸、探索、检验这个理念, 并最终因地制宜地定制应用。

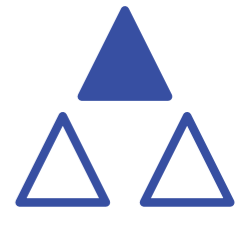


## 7 PROTOTYPE, PROTOTYPE

The prototyping phase is a spiral process and the projects improve with increasing versions, compared to a constant comparison on how to perfect the object.

### 7 原型, 原型

原型阶段是一个螺旋式的过程, 产品随着版本的更新而持续改进, 每个版本都在不断的比较当中日臻完美。



## 8 REPLICATE, SCALE, SHARE

A well designed project on its own could be useful and replicated to also respond to others' needs. Here is where the value of the open source philosophy comes into play: share the process and the final solution is a way to enrich the project and to amplify its social impact.

### 8 复制、规模、分享

一个设计精良的项目, 本身也可以回应并被复制以满足他人的需求。这就是开源哲学的价值所在: 分享过程和最终的解决方案, 能够丰富这个项目的内涵并扩大其社会影响力。

From 2015 **OpenDot**, a Milanese Fab Lab and open innovation hub, following a workshop with the TOG Foundation, a center for kids with neurological disease, has started to grasp how much design through technology can facilitate processes as they relate to the world of disability.

Today, after a series of collaborations with patient organizations, doctors and health care companies, **OpenDot** formalise their inclusive co-design methods in a Manifesto based on human-centered design, digital fabrication and agile prototyping.

自2015年起, 位于米兰的Fab Lab实验室与开放创新中心**OpenDot**, 就开始与关注罹患神经系统疾病的儿童境况的TOG基金会合作, 共同举办工作坊, 研究通过技术产生的设计产品能在多大程度上为残疾人的生活带来便利。

如今, 经过与病患组织、医生和医疗保健公司的一系列合作, **OpenDot**已经总结出一套以人为本、基于数字制造与快速成型的协同设计方法, 提炼成宣言如下:

Nowadays, care and health have technology and methodologies at their disposal that could definitely transform them, bettering the quality of life of millions living with disabilities, both physical and cognitive, whether temporary or permanent.

They are new tools that allow to adapt, personalize and even create more effective solutions from scratch. We are one step away from being able to take care of each other, as people, with unique tastes and necessities, not only as patients of a certain pathology.

In order to do this, the contribution of different people who work together, such as designers, makers, therapists, doctors, and of course people with disabilities and their caregivers, is required. The method for developing these solutions and the co-design, which OpenDot, thanks to the experience gained through the collaboration with the TOG Foundation, has applied for several years to the world of healthcare. A method able to enable and facilitate processes, stimulate creativity in order to create new solutions and improve the lives of people by generating innovation.

当前, 医疗和保健行业已经拥有足够的技术和方法, 能够确定无疑地帮助行业转变, 帮助改善数百万在生理上或认知上罹患暂时性或永久性残疾的人士的生活质量。

这些技术和方法是新的工具, 能够调整、个性化甚至是从零创造出更有效的解决方案。很快, 我们就能够把彼此都作为拥有独特品味与需求的人类来照顾, 而不仅仅是作为患有某种病症的病人。

为了做到这一点, 我们需要与不同的人一起努力, 比如设计师、创客、治疗专家、医生, 当然还有残疾人士以及他们的看护人员。借助与TOG基金会合作所获得的经验, OpenDot已经将开发这些解决方案的方法以及协同设计在医疗保健领域应用了数年。这种方法能够催生并协助流程进展, 能够激发创造性, 以便创造新的解决方案, 通过创新来改善人们的生活。

www.opendotlab.it

# #Envision2030

## Imagine the world in 2030, fully inclusive of persons with disabilities

Building on the principle of “leaving no one behind”, the 2030 Agenda for Sustainable Development that includes 17 Sustainable Development Goals (SDGs) emphasizes a holistic approach to achieving sustainable development for all.

The SDGs also explicitly include disability and persons with disabilities 11 times. Disability is referenced in multiple parts of the SDGs, specifically in the parts related to education, growth and employment, inequality, accessibility of human settlements, as well as data collection and the monitoring of the SDGs.

Although, the word “disability” is not cited directly in all goals, the goals are indeed relevant to ensure the inclusion and development of persons with disabilities.

In particular, Goal 8 clearly states: “to promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all, the international community aims to achieve full and productive employment and decent work for all women and men, including for persons with disabilities, and equal pay for work of equal value”

The campaign #Envision2030 was launched in 2016 to promote the mainstreaming of disability and the implementation of the SDGs with the objective to raise awareness, promote an active dialogue among stakeholders for persons with disabilities and establish an ongoing resource on each SDG and disability.

Furthermore, the European Union funded International Disability and Development Consortium (IDDC) and the global International Disability Alliance (IDA) have produced both a Comprehensive Guide and an Introductory Toolkit on The 2030 Agenda — The Inclusion of Persons with Disabilities.

Both the guide and the toolkit present information about the 2030 Agenda, how it connects to the United Nations Convention on the Rights of Persons with Disabilities (UN CRPD) and explore ways for persons with disabilities to be influential and participate in how they are achieved, and potential entry points for persons with disabilities to influence and participate in their implementation, follow-up and review.

Furthermore, as stated on IDA’s website, recognizing that persons with disabilities are not a homogenous group, and some constituencies, such as persons with deafblindness, remain marginalised and, in many ways, invisible, the World Federation of the Deafblind (WFDB) developed the first ever global report on the situation of persons with deafblindness. ■

# #远景2030

## 设想2030年的世界,充分包容残疾人

基于“不让任何一个人掉队”原则而确立的《2030年可持续发展议程》涵盖了17个可持续发展目标,强调全观法,以实现所有人的可持续发展。

这17项可持续发展目标中有11次明确包括了残疾和残疾人。目标里多处涉及残疾,特别是在与教育、增长和就业、不平等、人居环境的可达性,以及可持续发展目标数据收集和监测有关的部分。

尽管“残疾”这个词并没有直接出现在所有目标中,但这些目标确实与确保残疾人的参与和发展有关。

新实施的《2030年可持续发展议程》是对全球残疾人士的郑重承诺。

2016年开始启动的#远景2030活动,目的是促进残疾进入主流视野,落实可持续发展目标,增强意识,促进残疾人利益相关者之间的积极对话,并为每一个与残疾相关的可持续发展目标建立持续资源。

此外,由欧盟资助的国际残疾和发展联盟(IDDC)和全球国际残疾人联盟(IDA)已经就《2030年议程——纳入残疾人》编写了《综合指南》和《入门工具包》。

《指南》和《工具包》都提供了有关《2030年议程》的信息,包括它如何与《联合国残疾人权利公约》(UN CRPD)联系起来,探索残疾人如何具有影响力和参与实现这些目标的途径,以及残疾人可以从何处切入,去影响和参与这些目标的实施、后续及评估。■

To continue the conversation on inclusion, the UN has setup a specific email and social network  
联合国为促进包容性讨论而专设的邮箱:  
enable@un.org  
account @UNEnable

The full report and toolkit from IDDC and IDA are downloadable here  
国际残疾和发展联盟与全球国际残疾人联盟共同编制的完整指南和工具包下载地址:  
<https://www.iddcconsortium.net/resources-tools/2030-agenda-inclusion-persons-disabilities>

# DISABILITY — INCLUSIVE

## Disability is included in the following GOALS :

4.



Guaranteeing equal and accessible education by building inclusive learning environments and providing the needed assistance for persons with disabilities

8.



Promoting inclusive economic growth, full and productive employment allowing persons with disabilities to fully access the job market

10.



Emphasizing the social, economic and political inclusion of persons with disabilities

11.



Creating accessible cities and water resources, affordable, accessible and sustainable transport systems, providing universal access to safe, inclusive, accessible and green public spaces

17.



Underlining the importance of data collection and monitoring of the SDGs, emphasis on disability disaggregated data



## All goals are universal.

11x

“Persons with disabilities” or “disability” are specifically mentioned in the 2030 Agenda for Sustainable Development

6x

Persons in vulnerable situations are specifically mentioned in the 2030 Agenda for Sustainable Development







## THE BIG PICTURE 大背景

Mercury in any form is poisonous, with mercury toxicity most commonly affecting the neurologic, gastrointestinal and renal organ systems. In poor areas where artisanal and small-scale mining is still carried on using large quantities of mercury, the pollution affects pregnant women, and new generations. This picture was taken in Myanmar, and this child was born with health issues due to mercury pollution.

在缅甸贫困地区,很多手工或小型采金场仍在使用水银炼金法。大量水银带来的毒性污染给孕期妇女造成的影响尤为严重,照片中的儿童因汞污染而天生患疾。

Photo/摄影:  
**Nicola Longobardi**, 2017



# 微格局

## Design for Social Change 为社会变革而设计

A Conversation with **Mugendi M'Rithaa** By ICCSD  
ICCSD对话穆甘迪·姆托瑞达



**Mugendi M'Rithaa:** Former President of the World Design Organization, educator and researcher at Machakos University, member of the Advisory Committee of the International Center for Creativity and Sustainable Development under the auspices of UNESCO [Category 2]

穆甘迪·姆托瑞达是世界设计组织荣誉主席，马查科斯大学教授，联合国教科文组织国际创意与可持续发展中心咨询委员会委员。

**We know the inclusion of Youth is a key pillar for future development and actions. As an educator, what do you think is key to youth inclusion? What are essential elements one should not take for granted when considering what youth care about nowadays?**

The youth are the future hope for humanity, literally. As an educator, the greatest gift you can give young people is hope and education. The energy and passion of our young people should be aligned with the wisdom and experience of their elders to co-create solutions for a future that they will inhabit. It is incumbent upon us (as elders) to mentor the next generation by equipping them with requisite skills in creativity and problem-solving that will serve the youth for generations to come. Indeed as one African proverb avers: “those born on top of an anthill take a shorter time to mature” — we should constantly seek novel ways in which to give the youth every possible advantage or head-start to grow faster in stature, competence and resilience.

**Design disruption, we keep hearing about this concept as extremely positive, especially when applied to technological innovation. What do you think? Is disruption the key to change?**

Change is inevitable, but not all change is beneficial. Technological disruptions are always welcome, provided they do not lead to social disintegration and inequity. Speaking as one who is passionate about the positive benefits of technology, I pray that any advances in technology would also seek to enhance social equity and cohesion — not merely change for change sake! Additionally, I am cognisant that some technological disruptions in the fields of communication, agriculture, health and education have the potential to leapfrog so-called emerging economies (such as those in Africa) by rapidly accelerating their developmental agendas.

**What is happening in Africa now, specifically connected to socially responsible design? Do you see a fast pace of change especially in product creation, or design thinking approach is also permeating the mindset in general?**

Africa has the youngest population demographic in the world and is home to some of the fastest growing economies. The traditional view and narrative around our continent has revolved around our vast natural resources, but rarely captures the human capital potentiality and energy of the creative and solutions economies. The role of socially responsible design in general (and human centred-design/design thinking in particular) is to educate various stakeholders and re-orientate public and private support for the creative industries by showcasing the socioeconomic value of design and allied creative fields in value addition through socially desirable, technically feasible and economically viable products, services, systems and experiences that not only highlight an enlightened view of the continent, but also celebrate the vibrancy and vitality of its latent creativity.



# ONE ONLY HAS TO NAVIGATE ANY MAJOR CITY AND ITS ENVIRONS TO REALIZE HOW MANY PHYSICAL AND COGNITIVE BARRIERS EXIST IN THE BUILT ENVIRONMENT

## Can you elaborate a bit on Universal Design? What is it? And what is its importance in today's changing world? Will it become a priority for all?

One only has to navigate any major city and its environs to realize how many physical and cognitive barriers exist in the built environment. As more people migrate to cities, the impact of design and its allied fields of architecture, engineering and planning (to name a few) is felt and experienced more profoundly. Subsequently, these noble professions must be sensitive to (and take responsibility for) vulnerable groups and people with special needs such as women, children, persons with disability, the elderly, and visitors who don't speak (or read) local languages. Universal Design is the specialized field that seeks to include these aforementioned vulnerable groups in the design of products, services and environments to render them as usable as possible without need for unique (case-specific) interventions.

The importance of adopting and adapting Universal/Inclusive Design principles in the design of 21st century built environments and cities is even more urgent as we tackle megatrends such as the global phenomenon of population aging whereby people are living longer and expect to enjoy quality of life through aging-in-place and independent living facilities, as well as products, services and systems that are more universally accessible to all.

## Given your experience as an educator and advocate for Design for Social Change, can you tell us of some key projects that you consider among the most interesting you have seen lately?

Design for Social Innovation and Sustainability emphasizes the need to bring about desirable social change by uplifting living standards and improving the quality of life of participating community members. The emphasis is on communal engagement, participation and social transformation through co-design methodologies that tap into the tacit and embedded knowledge that communities possess. I have also been an active member of international networks such as the Design for Social Innovation and Sustainability (DESIS), designBRICS+ (on designerly strategies for mitigating climate change), as well as the Learning Network on Sustainability (LeNS) networks with a bias towards sustainable product-service-systems (S.PSS).

As a means to contribute towards UN Social Development Goal 12 on Responsible Production and Consumption, I have participated in and led a number of projects tackling wasteful consumption, recycling of waste, solid waste management and climate resilience. For example, in Kenya we have been looking at ways of reducing post-consumer waste in fast-moving consumer products in

Machakos, whilst in South Africa I was involved in a project that co-designed a solid waste management system for an informal settlement in Cape Town. In all these projects, consumer awareness and design thinking have played an important role in ensuring community uptake, ownership and sustainability.

## Comparing with Africa and Europe, what characteristics China has in attaining SDGs as you observed?

I have been interested in China for as long as I can remember. The longest continual civilization known to humankind, the impressive Great Wall, the invention of fireworks, the mighty Yangtze and Yellow rivers, the travels of Marco Polo, green tea, silk and porcelain all make the list. More recently, the 2008 Beijing Summer Olympics showcased these and other technological achievements ascribed to China. Professionally though, my interest in the country and its creative potential is only 10 years old.

I have had the good fortune of attending many events as well as visiting many projects and initiatives that demonstrate China's commitment to the realization of the UN SDGs and consider the country to be a global leader in rallying such efforts. For example, it is my humble opinion that China is one of the countries leading in SDG Goals 4 (Quality Education); 6 (Clean Water and Sanitation); 8 (Decent Work and Economic Growth); 9 (Industry, Innovation and Infrastructure); 11 (Sustainable Cities and Communities); 12 (Responsible Consumption and Production); 13 (Climate action); and 17 (Partnerships for the Goals).

Africa is made up of 55 states, some countries further ahead in the achievement of UN SDGs than others. For example, Rwanda is a global leader in SDG 5 (Gender Equality) and opportunities for benchmarking best practices abound. I personally advocate closer and more robust Sino-Africa partnerships so that mutual benefits accrue in the areas of innovation, technology, and infrastructure. To this end, China offers more realistic replicable solutions than older economies (European ones for example) as China has demonstrated quite convincingly how it has transformed itself and improved standards of living for an impressive number of its citizens in just four decades — a relatively short time indeed! ■

**我们知道,青年是未来发展和行动的重要支柱。作为一名教育工作者,您认为吸纳青年的关键是什么?如今有哪些因素是我们不能理所当然地认为青年们会关心的?**

青年是人类未来的希望,这是切切实实的。作为教育工作者,我们可以给年轻人最大的礼物就是希望和教育。年轻人的精力和热情应当与长辈的智慧和经验相结合,为他们将要共同面对的未来创造解决方案。作为长辈,我们有责任指导下一代,使他们具备必要的创造力和解决问题的技能,为子孙后代服务。事实上,正如一句非洲谚语所说:“生于蚁丘最顶端的,成熟所用的时间更短。”我们应该不断寻求新颖的方式,让青年人获得一切可能的优势,在声望、能力和适应力方面更快地成长。

**“设计颠覆”这个概念经常以非常积极的面貌出现在人们视野里,尤其是当被应用于技术创新时。对此您怎么看?颠覆是变革的关键吗?**

改变是不可避免的,但并非所有的改变都是有益的。技术颠覆理应受到欢迎,只要它不会导致社会解体和不公平即可。作为一个热情歌颂技术的积极面的人,我祈祷技术的进步不是为了改变而改变,而是为了寻求社会公平的改善和凝聚力的增强。此外我也认识到,在通信、农业、卫生和教育领域的一些技术颠覆,是有可能通过加快其发展速度来超越所谓的新兴经济体的(如在非洲的一些经济体)。

**现在非洲正在发生什么,特别是在与社会责任相关的设计方面?您是否看到了在产品创造方面的快速变化?或者设计思维方法也正在渗透到思维模式中?**

非洲有全世界最年轻的人口结构,也是一些增长最快的经济体的所在地。和非洲相关的传统观点和叙事常常围绕着丰富的自然资源展开,却很少聚焦人力资本潜力、创意力量与经济解决方案。整体而言,有社会责任感的设计(尤其是以人为本的设计/设计思维),其作用是通过展示设计的社会经济价值和相关创意领域的价值,通过社会需要的、技术上可行的和经济上可行的产品、服务、系统和经验,教育各种利益相关者,并重新引导和定向公众、私人对创意产业的支持。这些不仅突出了非洲大陆的文明视野,也颂扬了其潜在创造力的生机活力。

**您能详细阐释下普惠设计吗?什么是普惠设计?在今天这样一个变化的世界中,它的重要性是什么?它会成为所有人的优先事项吗?**

你只需在任何大城市和它的周边游历一番,就能了解到在建筑环境中存在多少物理和认识上的壁垒。随着更多的人移居到城市,人们更能深刻地感受到设计及其相关的建筑、工程和规划等学科的影响力。相应地,这些高尚的职业应该对弱势群体和有特殊需要的人群更敏感并且为之担起责任,比如妇女、儿童、残障人士、老人和不会说/读当地语言文字的人。普惠设计是一个旨在把上述提到的弱势群体的需要纳入到产品、服务和环境设计的特殊领域,目的是使上述人群不需特殊措施就能顺利地使用这些产品或服务。

在21世纪的居住环境和城市的设计中采用并不断改进普惠/包容的设计原则愈加迫切,因为我们需要妥善应对大趋

势,比如全球性的人口老龄化,人们寿命更久,同时希望通过居家养老、独立的生活设施以及所有人都可以获得的产品、服务和系统等方式享受品质生活。

**作为教育工作者和“为社会变革而设计”的积极倡导者,您能否与我们分享一些您最近看到的有意思的项目?**

“社会创新和可持续设计”(DESIS)联盟强调需要通过提升生活水平和参与的社区成员的生活品质,带来良性的社会变革。重点在于社区的参与和通过共同设计的方法带来社会变革。这种共同设计的方法可以利用社区原本就具有的非显性的内含的知识。我一直以来都是DESIS联盟、design-BRICS+ (关于减缓气候变化的设计策略)等国际网络的积极成员,还有国际可持续性学习网络(LeNS),侧重于可持续的产品-服务-系统(S.PSS)。

为助力实现联合国可持续发展目标12——可持续的生产和消费,我参与且主导了许多针对浪费性消费、水回收、固体废物管理和气候韧性的项目。比如,在肯尼亚马查科斯,我一直关注如何减少快速消费品被消费后所产生的垃圾;在南非,我参与并共同设计了一个开普敦临时棚户区的固体废物管理系统。在所有这些项目中,消费者的意识和设计思维,都对确保社区对这些方法的利用、社区的主人翁意识和可持续性起到了重要作用。

**在您看来,与非洲和欧洲相比,中国在实现可持续发展目标方面有什么特点?**

我一直就对中国非常感兴趣。这里有人类最长的持续文明、壮观的长城、火药的发明、壮阔的长江和黄河、马可·波罗的旅行、绿茶,还有丝绸和瓷器等等。2008年的北京夏季奥运会展示了这些成就,还有其他中国取得的技术上的成就。从专业角度而言,我对中国及其创意潜力的兴趣大概从10年前开始。

我有幸参加过多场活动,也参观了许多项目,这些活动、项目和倡议彰显了中国对实现联合国可持续发展目标的承诺。我认为中国是动员这方面努力的全球领导者。例如,我个人认为,中国在推动落实可持续发展目标4(品质教育)、目标6(清洁水资源和卫生)、目标8(体面工作和经济增长)、目标9(产业、创新和基础设施)、目标11(可持续城市与社区)、目标12(负责任的消费与生产)、目标13(气候行动)和目标17(伙伴关系)等方面都是领先国家之一。

非洲有55个国家,有些国家在推动落实联合国可持续发展目标方面走在前面些。比如,卢旺达在目标5(性别平等)方面就全球领先,在制定最佳做法标杆方面机会也很多。我个人提倡更紧密团结的中非伙伴关系,可以实现在创新、技术和基础设施方面的互惠互利。相比于老牌经济体(欧洲国家),中国提供了更实际的可复制的解决方案。因为中国令人信服地展示了如何在40年的时间里脱胎换骨,显著提升如此多国民的生活水准。40年真的是很短的时间! ■

你只需在任何大城市和它的周边游历一番,就能了解到在建筑环境中存在多少物理和认识上的壁垒



# Notes on Shared Artificial Intelligence

## 关于共享人工智能的几点

By **Alessandro Masserdotti**

co-founder Dotdotdot & OpenDot

作者:亚历山德罗·马赛多蒂

Dotdotdot & OpenDot 联合创始人

What if all information was completely open source? What if we all had access to everyone's information? What would happen if all findings were in the public domain yet used to the benefit of individuals and communities and not just to the companies' that currently possess data?

To be sure, in the field of computation, the fact that developers can release their source codes publicly has generated unprecedented innovation. But let's take a look at another example linked to the subject of IoT (Internet of Things) and open source. Brad, the Shared Toaster, was designed in 2012 by Simone Rebaudengo (<https://vimeo.com/41363473>); this particular toaster has personality, and is interconnected and in constant dialogue with its "peers". We interact with Brad as we do with all other toasters, but without having to learn complex functions or having to set our personal parameters for toasting. However, Brad is interconnected and enters dialogue with other toasters. The ironic and speculative goal of the project implies the idea that the product's "agency" (or "self-initiative") is commanded by the product autonomously, as it performs smart actions independently from our inputs.

IoT products must not, or should not, interact directly with people; more importantly, they should not interact with us when we do not want them to! Today we are constantly prompted by alerts via e-mail, from social networks, chat groups etc. and we really do not need any more of this — we do not

need our refrigerator to tell us when we are out of tomatoes.

What we'd need is for products to live their own lives, an independent and detached existence; they should be able to communicate with one another and not be designed to resemble humans, performing activities on our behalf. The real innovation lies in making the interaction between "things" and people normal and smooth, where the former operate independently by managing smart and automated actions regardless of our own inputs.

A practical example: there is a medicine cabinet in every home. How many of these drugs are out of date? Let's suppose that one of our neighbors

needs a specific drug and the exact one we have in our medicine cabinet is close to its expiry date — the hypothetical IoT Medicine Box could

communicate with other Boxes in the neighborhood and indicate who has the drug for the person who needs it at a precise moment in time.

Another example, more immediate and always in vogue: what would happen if every city was equipped with driverless cars that can learn to travel from one part of the city to another at specific times depending on the citizen's requirements and routines. It would be a revolution on several levels — urban, environmental, social and economic.

The vision of IoT is projected towards a future scenario in which items are mutually interconnected; they will be able to share information, making it public and accessible to everyone. It could be described as

### WE DO NOT NEED OUR REFRIGERATOR TO TELL US WHEN WE ARE OUT OF TOMATOES

如果所有信息都是完全公开的资源,如果我们都能获取别人的信息,如果公共领域的信息为个人和社区所用而不仅仅是被当前保存数据的公司所用,结果会怎样?

可以肯定的是,在计算领域,开发人员可以公开发布源代码这一事实已经产生了前所未有的创新。接下来我们要说的是与物联网的主体和开放源码相关的另外一个例子。

2012年由Simone Rebaudengo设计的名为“Brad”的共享烤面包机([www.vimeo.com/41363473](http://www.vimeo.com/41363473)),具有个性化设计,并且是时时刻刻与其“同类”互联互通着的。我们使用Brad时和使用其他面包机一样,但无需学习其复杂的功能或在烤面包时设置个人所需的参数。然而,Brad之间是互相连通的,且可以与其他烤面包机进行对话。该项目目标的讽刺性和投机性意味着这种产品的“代理”(或“自主性”)是由产品自主指挥的,因为它不需要我们的输入就可以智能操作。

物联网产品不能也不应该直接与人互动;更重要的是,在我们没有此种需求的时候,它们不应该与我们互动!现在我们不断收到来自电子邮件、社交网络、聊天群等的提示警报,真的不需要更多类似的信息了——我们不需要冰箱提示我们家里没有西红柿了。我们需要的是产品作为一个独立的、单独的存在自主运行;产品之间可以互相沟通,但设计时又不能代替我们人类进行活动。将“物品”与人类之间的互动变得更加正常顺畅,这才是真正的创新,前者通过智能和自动化操作而独立运作,无需人类进行输入设定。

举一个实际的例子:每家都有一个药箱。这些药物中有多少是过期的?假设我们的某位邻居需要某种特定的药品,而我们药箱中的该类药品已快到期——假定我们的物联网医药箱可以与附近的其他物联网医药箱进行互动沟通,就能清楚及时地指示出谁有该类药品,谁需要该类药品。

另一个更直接、更流行的例子是:

# WHAT IF ALL INFORMATION WAS COMPLETELY OPEN SOURCE? WHAT IF WE ALL HAD ACCESS TO EVERYONE'S INFORMATION?

如果所有信息都是完全公开的资源,如果我们都能获取别人的信息,如果公共领域的信息为个人和社区所用而不仅仅是被当前保存数据的公司所用,结果会怎样?



Shared Artificial Intelligence. Artificial Intelligence must be considered not as a replacement but as a complementary attribute to human intelligence; and despite the current results, that are not always satisfactory, research today is still trying to emulate the human brain and its behavior. The question we need to ask is “What can computers and machines do better than we can?” This should be the focus of research: it should concentrate on using computer systems in the development of machinery that can create and maintain multiple and synchronized relationships with instruments, products, all sort of items; they should be able to control and manage a large quantity of information and data,

process them and compare them with others. “Things” would therefore acquire independence and “a life of their own”; they could optimize resources and assist us in our everyday activities, without interfering with or changing our routines.

In other words, it is irrelevant whether in the future our computer will greet us with a “Good Morning” everyday; it would be a lot more useful if we had a washing machine that can autonomously decide when to activate its cycle in relation to the electrical power available on the grid and possibly “agree” with other washing machines in the neighbourhood to decide which is the most efficient moment of the day to do the washing, regardless of its owner’s plans. ■

如果每个城市都配备无人驾驶汽车,在特定的时间根据市民的要求和习惯,可以从城市的一个地方到达另一个地方,那会发生什么呢?那将是涉及城市、环境、社会和经济诸领域的一场革命。

物联网的愿景被设定到了一个未来的场景,在这个场景中,项目是相互连接的;它们将能够共享信息,使之成为公众和所有人都可以利用的信息,即我们所说的共享人工智能。

人工智能不应被视为人类智慧的替代物,而应是人类智慧的补充。尽管目前的结果并不总尽如人意,但当前人工智能的研究仍在试图模仿人脑及行为。我们需要问的是:计算机和机器在哪些方面能做得比我们更好?这应该是当下研究所应关注的:在机械发展过程中利用计算机系统,以创建和维护与仪器、产品、各种物品的多个同步关系;它们应该能够控制和管理大量的信息和数据,并与其他信息和数据进行比较。因此,“产品”即获得了独立性及“自体生命”;它们可以优化资源,在我们的日常活动中给予协助,而不干扰或改变我们的日常生活。

换句话说,未来电脑能否在每天早上向我们问候早安无关紧要;更有用的状况是,我们的洗衣机能够根据周边电网的电力情况自主决定什么时候激活运转周期,并与周边的洗衣机协同决定什么时候最适合洗衣,而无需主人事先计划。■

**OpenDot** stemmed from Dotdotdot, an interaction design studio that combines art, architecture and design with innovative technologies and new media. **OpenDot** is a Fab Lab and a place for rapid prototyping, open innovation, research and experimentation, an open and accessible platform that intertwines and merges different entities to make a change in the lives of people and businesses. IoT, interaction design, child care and well-being are the main fields of research; digital fabrication, new technologies and a multidisciplinary network are the tools. **OpenDot** and Dotdotdot are a reference point for companies that wish to implement their products and know-how through processes of innovative development.

OpenDot源自Dotdotdot,是一个将艺术、建筑、设计与创新技术和新媒体结合起来的交互设计工作室。OpenDot是一个Fab Lab实验室,可进行快速塑形,是进行开放式创新、研究和实验的地方,它作为一个开放平台将不同的实体进行合并,以改变个人和企业的的生活。物联网、交互设计、儿童保健和健康领域是其主要研究方向;数字制造、新技术和多学科的网络是其使用的工具。OpenDot和Dotdotdot可以为那些希望通过创新推动产品和技术发展的公司提供参考。

# UNICO — The Other Design

is the brand-name for a collection of objects and a new platform created by OpenDot Fab Lab and the TOG Foundation that incentivises collaboration between designers, therapists, kids with disabilities and their families, to make real change. For children affected by complex neurological pathologies, many of which with severe motor deficits, it is often necessary to identify personalized solutions than can encourage an improvement in the quality of life and allow the children to achieve greater independence.

UNICO aims to offer products and services for the production and sales of medical and orthopedic articles that are based on usefulness, specificity, sustainability and beauty, co-designed to satisfy the real needs of the individual.

From the DIY bicycle for children with motor difficulties, to a series of items that can facilitate drawing and artistic expression for people with cognitive and motor dysfunctions, all the products are custom-made for the improvement of their quality of life.

## UNICO — 另一种设计: 社会创新与功能缺陷

“UNICO-另一种设计”是由OpenDot - Fab Lab实验室和TOG基金会共同创立的一个产品品牌和新平台,旨在通过激励设计师、治疗专家与残疾儿童及其家人之间的相互合作,做出切切实实的改变。对于受复杂神经病理影响的儿童而言,尤其他们当中许多有严重的运动缺陷,往往需要确定个性化的解决方案,以帮助改善生活质量,并使儿童获得更强的独立性。

UNICO旨在为医疗和骨科用品的生产和服务提供产品和服务,这些用品应基于实用性、特殊性、可持续性和美观性,是通过共同设计而产生的满足个人实际需要的产品。针对对存在运动困难的儿童而开发的DIY自行车产品,到能够为认知和运动功能障碍人士提供绘画和艺术表达的一系列物品,所有这些产品都是为了帮助提升使用者的生活质量而特别定制的。

比如“洛伦佐的自行车”是一款定制的三轮自行车,配有小曲柄、人体工程学座椅、靠背支撑和可调节的把手,是OpenDot和洛伦佐的父母、TOG治疗师共同根据洛伦佐的身体情况和需求设计制造的。还有Glifo,这是一套个性化工具,可以让有运动功能障碍的儿童做到手持铅笔、钢笔和记号笔来画画或写字。另一个例子是“安娜的体位座椅”,它的设计特点是方便、可调节和便于携带,能够让这个六岁的孩子“不需要真的站起来也能站着”,能让她和其他孩子保持相同的高度。

从普适性设计到个性化设计,设计和数字制造终于成为服务于个人需求的工具,缩短了设计者与用户之间的距离。■

更多信息请见 [www.uni.co](http://www.uni.co)

Lorenzo’s Bicycle is a customised three-wheeled bicycle with small cranks, ergonomic seat, back support and adjustable handlebars entirely designed on Lorenzo’s body and needs along with his parents and TOG therapists.

Glifo, a kit of personalized tools for holding pencils, pens and markers allows children with motor dysfunctions to draw or write.

Anna’s postural seat is characterized by a handy, adjustable and easily transportable design that allows the 6 year-old kid to “stand without really stand up” enabling her to stay at the same height of the other children.

From Design For All to Design For Each, design and digital fabrication finally become instruments at the service of individual needs, reducing the distance between the designer and the end-user. ■

Find out more at [www.uni.co](http://www.uni.co)



Lorenzo’s Bike, 2016



Anna’s postural seat, 2018



Glifo, 2016



# Lift Bit: The World's First Digitally Transformable Sofa

## 智能变形家具



Lift Bit, photo by Daniele Iodice

Imagine a piece of furniture you can remotely reconfigure with an app. Imagine a sofa that reacts and autonomously adjust its shape when you get close to it. Imagine a seating system that can change form in infinite numbers of ways -- and seamlessly turn into a bed, a chaise-longue, a group of armchairs, or a playground for kids. All of this is Lift-Bit, a project designed by Carlo Ratti Associati together with OpenDot Fab Lab.

Lift-Bit is the world's first digitally-transformable sofa that brings Internet-of-Things (IoT) technologies for the first time in the domestic environment.

Thanks to the hybridization between new technologies, fast prototyping and technical know-how, Lift-Bit has been entirely engineered and produced within the OpenDot Fab Lab. The Lift-Bit app, sustained by a mesh networking system, includes both a series of predetermined three-dimensional shapes and a tool to invent dynamic combinations. Furthermore, the seats' soft texture embeds a capacitive control system, allowing each stool to sense the presence of a person's hand close to it and start moving accordingly. By matching these technological elements with an elegant

design, Lift-Bit makes it possible to reconfigure any or home or office setting, ushering in a new vision of interior design. Lift-Bit is a first attempt to start imagining an architecture that adapts to human need, by giving people the possibility to actively contribute to the design of their own space. It is a participatory design which never ceases to surprise. ■

[www.lift-bit.com](http://www.lift-bit.com)

想象一件家具，你可以通过手机应用对其进行远程重置；想象一个沙发，当你靠近时它可以主动反应并自动调整形状；想象一个座椅系统，可以无限次改变形式，无缝转变成一张床、一张躺椅、一组沙发或供孩子玩耍的场地。这就是Lift-Bit智能家具，由Carlo Ratti Associati与OpenDot Fab实验室共同设计研发的一个项目。

Lift-Bit是全球第一个数字化可变形沙发，

首次将物联网技术应用到家居环境中。在新技术、快速原型设计、技术方法的共同作用下，Lift-Bit已在 OpenDot Fab Lab 实验室内进行设计和生产。

Lift-Bit所采用的应用程序由网状网络系统支持，包括一系列预设的三维形状和一个发明动态组合的工具。此外，座椅的柔软纹理中嵌入了一个电容控制系统，使每个凳子都可以感应到人类手掌的靠近，并进行相应的

移动。Lift-Bit将优雅设计与技术要素相匹配，可以对家用或办公用品设备进行重置设定，这一举措开创了室内设计的新世界。

Lift-Bit是世界范围内首次尝试制造能够根据人类需求进行调整的家具，使人可以根据自己的需求主动对所需空间进行设计，这一参与式设计将给用户带来不少惊喜。■

[www.lift-bit.com](http://www.lift-bit.com)



Lift Bit, photo by Daniele Iodice



# Beauty of Creation

Studio Eva x Carola Shanghai / London

Concerns about the constantly changing and uncertain world we live in can influence our emotional state and how our bodies function. We may feel distracted, vulnerable or desire escapism.

How can we reconnect with ourselves, feel better equipped to face challenges and channel our energy into positive thoughts?

Our activewear capsule “Beauty of Creation” responds to these challenges. We explore ways to recharge whilst sleeping, feel empowered when exercising and focus the mind during down time.

The capsule is organised into three concepts:

## Authenticity

Authenticity takes inspiration from our body and how the skin is constructed, functions and heals. How can we protect our skin and nurture it? How can we prevent the change of the skin structure caused by the ageing process, stress and exposure to sunlight, among other factors?

We combine our findings on Langer lines (the natural orientation of wrinkle development) with health yarns that nourish the skin. The result is innovative concepts and developments for sleepwear: clothing and materials that are able to re-activate, heal and protect our skin.

## Augmented

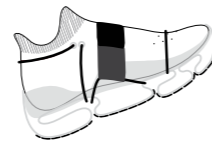
Augmented is based on a cross discipline whereby the use of machines enhance the ability of handmade techniques. Precise working methods and performance analysis lead to a more functional garment. This pleases intellectually as it is designed for purpose. Augmented garments enhance the wearer’s ability to perform. Advanced knitting techniques improve aerodynamics and buoyancy. Support, ventilation and compression give the wearer a “super human” feeling.

## Illusion

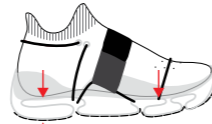
Illusion combines hand, machine and technology expertise to manipulate the senses and achieve a desired imaginary outcome. Fabric, form, touch and colour of the product are exploited to create a beautiful conscious illusion. Textile stimuli trick our senses leading the user to experience escapism. ■

### BLADE EFFECT 刀锋效果

No energy in neutral position of the blade prior to landing of the foot  
落地之前，刀锋位于中间位置，不含能量。



Blade is compressed during landing energy is stored  
落地瞬间，刀锋受力被压缩，储存能量。



During take off energy is released  
离地之时，释放能量。



## 创造之美

Eva x Carola工作室上海/伦敦

周围世界的不断变化以及不确定的未知，会影响我们的情绪状态和身体机能，导致我们时常感到分心、脆弱或者渴望逃避现实。这种时候，我们要如何让自己精神饱满，保持积极、正面的思考？

Eva x Carola工作室的运动衣“创造之美”可能会带来帮助：睡觉时，积蓄能量；锻炼时，充满力量；休息时，集中精神。

运动衣由三个概念构成：

### 真实

真实从我们的身体以及皮肤的构建、作用和治愈方式中汲取灵感。如何保护并滋养皮肤，使其免于因衰老、压力、阳光照射等因素而引起的结构变化？Eva x Carola将对兰格线（皮肤弹力纤维走行线）的发现成果与滋养皮肤的健康纱线结合起来，带来了睡衣的创新概念及发展：衣服和材料能够重新激活、治愈和保护我们的皮肤。

### 强化

强化是在交叉学科的基础上，使用机器提升了手工技术。精确的工作方法和性能分析使服装的功能性更强，强化了功能的服装能提升穿戴者的表现。先进的针织技术提高了空气动力和浮力；支撑、通风和压缩使人有了当“超人”的感觉。

### 幻觉

幻觉结合手工、机器和技术方面的专业知识来操纵感官，实现想要的幻想效果。利用产品的面料、形状、触感和颜色来创建一个美丽的意识幻觉。纺织触感会刺激感官，带来逃避现实的体验。■

### About Studio Eva x Carola

Studio Eva x Carola is at the forefront of innovation in performance textiles. Our expertise is in seamless and circular knitting techniques. We also explore alternative (fabric) production methods bringing a new dimension to textile and activewear. We research and develop creative and functional knit structures for future textiles. Through working with innovative makers we introduce new materials with a focus on sustainability and well-being. We believe by reversing the product creation process — designs are a result of material and machine selection rather than vice versa — the result is performance wear tailored to the athlete.

Eva x Carola工作室致力于功能性纺织品的创新，重点研发未来纺织品的创新性和功能性针织结构，在无缝针织和圆形针织方面拥有专业技术。

[www.evaxcarola.com](http://www.evaxcarola.com)



# Traffic Lights No More?

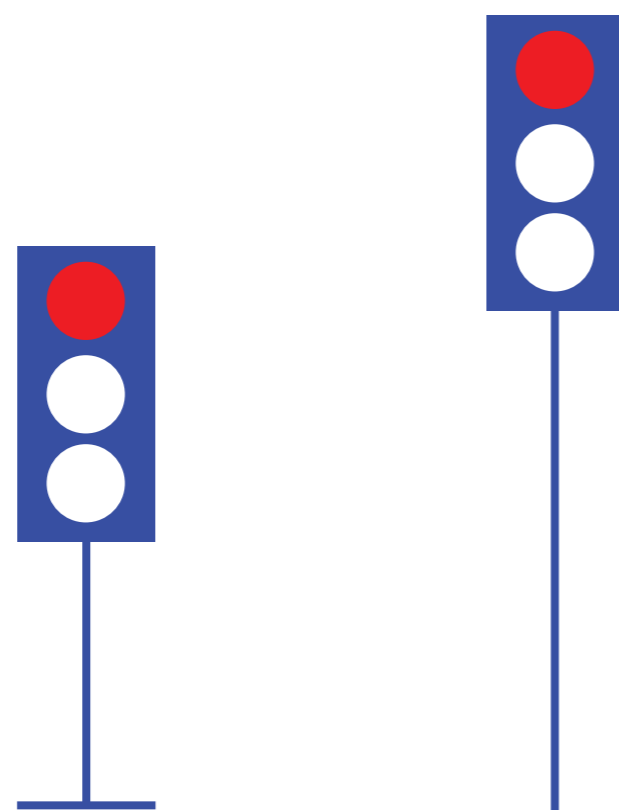
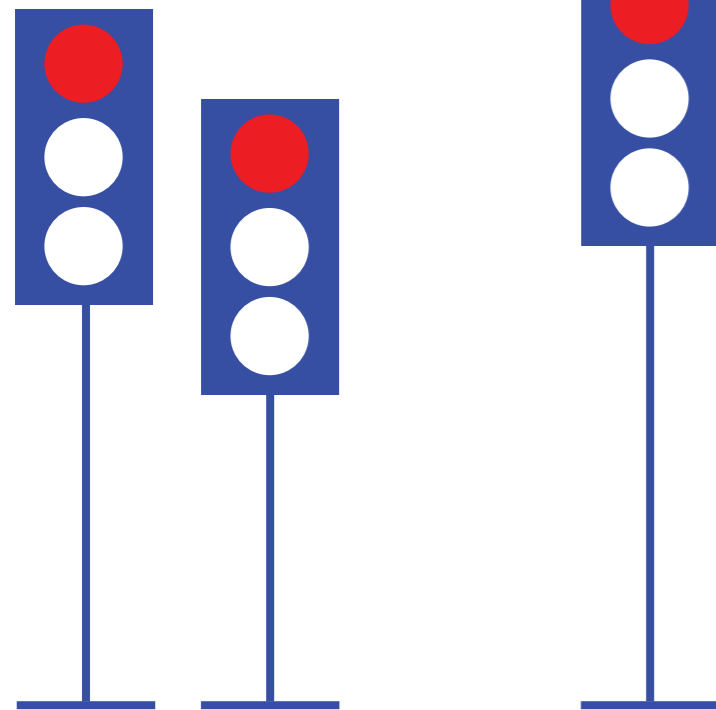
An international group of researchers at the Massachusetts Institute of Technology (MIT), the Swiss Institute of Technology (ETHZ), and the Italian National Research Council (CNR) have developed slot-based intersections that could replace traditional traffic lights, significantly reducing delays, make traffic patterns more efficient, and lower fuel consumption.

The idea is based on a scenario whereby sensor-laden, self-driving vehicles would pass through traffic intersections by communicating with and remaining at a safe distance from other vehicles, rather than grinding to a halt at traffic lights.

Slot-based intersections are similar to slot-based management systems used for air-traffic control. Upon approaching an intersection, a vehicle automatically contacts a traffic management system to request access. Each self-driving vehicle is then assigned an individualized time or "slot" to enter the intersection. Stop and go is largely avoided, which has the effect of reducing pollutants and greenhouse gases caused by acceleration and deceleration cycles.

As a future of self-driving cars is contemplated by an ever growing number of innovation-driven companies, looking at how its disruptive effect will impact the overall environment and decades old infrastructure, becomes an urgent quest for cities worldwide. ■

A video showing a side-by-side comparison of slot-based and traffic light intersections can be downloaded at [www.senseable.mit.edu/light-traffic](http://www.senseable.mit.edu/light-traffic).



## 不再需要交通指示灯?

麻省理工学院、瑞士理工学院和意大利国家研究委员会组成的一个国际研究小组已经开发出了一种槽型交叉路口,可以替代传统交通灯,能够显著减少延误,使交通模式具有更高效、更低碳的性能。

这个理念基于这样一种场景:自动驾驶的车辆在通过交叉路口时通过与其他车辆通信、确保安全车距进行运行,而不是在交通灯处停下来。

槽型交叉口与空中交通控制的槽形管理系统相似。在接近十字路口时,车辆会自动与交通管理系统联系请求进入。每个自动驾驶车辆被分配有个性化的时间或“槽点”,以驶入十字路口。基本上避免了车辆的停止和重新启动,减少了由加速和减速周期引起的污染和温室气体影响。

当越来越多的创新驱动型企业正在考虑投入发展自动驾驶汽车时,研究自动驾驶汽车对环境及旧有基础设施的影响已成为全球城市的迫切需求。■

显示槽型交叉与交通信号灯各项对比的视频下载地址:  
[www.senseable.mit.edu/light-traffic](http://www.senseable.mit.edu/light-traffic)

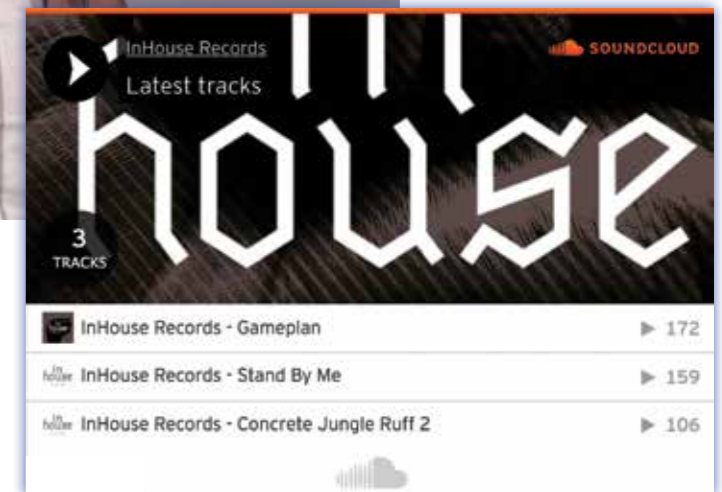
# Records Behind Bars

The InHouse record label from Brighton, UK, makes its recordings from prison, and offers prisoners an opportunity to return to society equipped with the skills to prosper.

In the past two years, violence in British prisons has increased 88%. The accompanying increase in personnel and security needs is costing the government GBP 15 billion a year. Record label InHouse operates from prison and may contribute to solving this problem. A project initiated by social designers to teach prisoners about all aspects of music production, apply their existing skills, and learn new skills, the label is currently operating from four prisons across the UK, with more than a hundred prisoners on the books. InHouse Record has successfully reduced violence in these prisons by as much as 36%, increasing positive behavior by 428%, and helped prisoners reintegrate into society after being released, thus significantly reducing levels of recidivism. Six other prisons are now applying to join the project.



Prisoners gain new horizons, and if this enables them to return to society with fewer roadblocks, it helps society as a whole. Skills learned during the project are widely applicable to life outside jail, with the participation of prisoners at all levels from artistic to commercial, meeting prisoners' various skillsets and interests. ■



# 铁窗里的唱片

英国布莱顿InHouse唱片厂牌在监狱发行唱片,赋予服刑人员回归社会的契机。

过去两年,英国监狱里的暴力事件增加了88%,而随之增加的人员与安全措施每年要花费政府150亿英镑。一个在监狱里运营的唱片厂牌“铁窗里的唱片”(InHouse Records)或许能帮助解决这一问题。这是由公共社会设计师设计的一个项目,可以帮助服刑人员学习音乐制作的各个方面,运用他们既有的技能,或是学习新的技艺。此厂牌项目目前在英国的四所监狱内实施,有超过100位服刑人员参与。结果表明,InHouse唱片项目成功减少了监狱里高达36%的暴力行为,增加了428%的积极行为,让服刑人员出狱后重新融入社会,从而大幅减低了再犯罪人数。目前已有其他六所监狱申请加入此项目。

这个特殊的唱片厂牌能够帮助服刑人员开拓新的视野,让获释者顺利回归社会。此项目内容丰富多彩,从艺术到商业层面都有服刑人员的参与,能满足服刑人员的不同技能与兴趣需求。■

Text/文 emma  
Photo/图 if award

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# Personal Resilience

## INTRODUCTION

Resilience is in fashion these days as being the answer to excess demands on time, dealing with adversity at work, and getting through the day without suffering too much.

At its basic level, resilience is about coping with demands on an everyday basis.

My interpretation is that resilience is a moderator between adversity and what we do about it. Active resilience is seen, by the resilient, as an opportunity, a chance to tackle a potentially stressful event without experiencing stress oneself.

For many, passive resilience is the only option available — the adversity is too great for an individual to deal with, so you retreat into a sort of hibernation hoping the adversity goes away and you emerge at some stage in the future unscathed.

Resilient is a choice. It comes into play when you are confronted by a potentially stressful event. Your immediate impulsive reaction to the threat is emotional, and it is at this point you need to decide whether to overcome the emotion and seek a solution to the threat or succumb to the threat. It is a choice based on your answer to 'What's in it for me to energise myself to overcome this threat?' The answer will depend on your appraisal of all the circumstances.

## CASE STUDY

The level of suicides amongst doctors in training in the UK is quite high. The training process itself is very challenging, and combined with such factors as high flying, hitherto successful, individuals suddenly being exposed to the possibility of failure in treating someone or in doing the wrong thing, the risks of distress are very high. One way of helping is to strengthen the resilience of the junior doctors themselves.

This isn't the answer to the problem, but it is part of the mosaic of answers. Strengthening personal resilience can only go so far. People are not infinitely elastic. If the circumstances in which a threat occurs are unfavourable to the individual, the person is likely to become passive. So, the environment has to change and improve for individuals to respond more assertively to threats.

The development of junior doctors is being done via their supervisors. This is because the supervisors also need to strengthen their resilience, and if they know how to do this, they have another series of techniques in their armoury to help juniors, and, also, keep an eye on them to pick up signals if things are going wrong for the junior.

The programme has eight elements divided into three forms of personal control — control over oneself, control over responses to events, and control over responses to people. The outline is in the image.

## CONCLUSION

Supervisors have received this training very positively. It is too early to know if there is a significant impact on the resilience of junior doctors. ■

# 个人心理韧性

## 引言

心理韧性是当下的流行话题,它被认为是应对对时间的过度需求、对付工作中遇到的困难,帮助我们每天不至于太难度过的解药。

从其基本意义上看,心理韧性是指日常应对需求的能力。

我认为,心理韧性是在逆境与我们应对逆境的方式之间的调解者。具备心理韧性的人会将“主动韧性”视作机会,会尝试借此处理掉有潜在压力的事件而无需经历压力本身。

对许多人来说,“被动韧性”是唯一的选项——逆境对于个人来说太过艰巨以至于你只好退缩到一种冬眠状态,暗自希望逆境会自动消失,然后你会在未来的某个时间点毫无无损地再次现身。

韧性是一种选择。当你面对有潜在压力的事件时,它就会发挥作用。面对威胁你的直觉反应会是情绪化的,此时你需要决定:你是要克服这种情绪、寻求解决威胁的办法,还是要屈服于这种威胁。这一选择的依据是你“激励自己克服这一威胁对我有什么好处”这个问题的回答,而答案则取决于你对所有情况的评估。

## 案例分析

在英国,实习医生的自杀率很高。实习过程本身是非常具有挑战性的,再加上自命不凡、迄今都很成功等因素,如果个体突然遇到可能无法治愈某个病人或做错事的情况,其感到苦恼的可能性是非常大的。缓解方法之一便是加强初级医生自身的心理韧性。

这不是针对此问题的全部答案,但至少构成了答案拼图的一角。增强个人心理韧性的作用是有限的。人不可能永远保持弹性。如果产生威胁的环境对个人不利,那么人很可能变得消极被动。因此,环境必须被改变或改善,以帮助个人更果断地应对威胁。

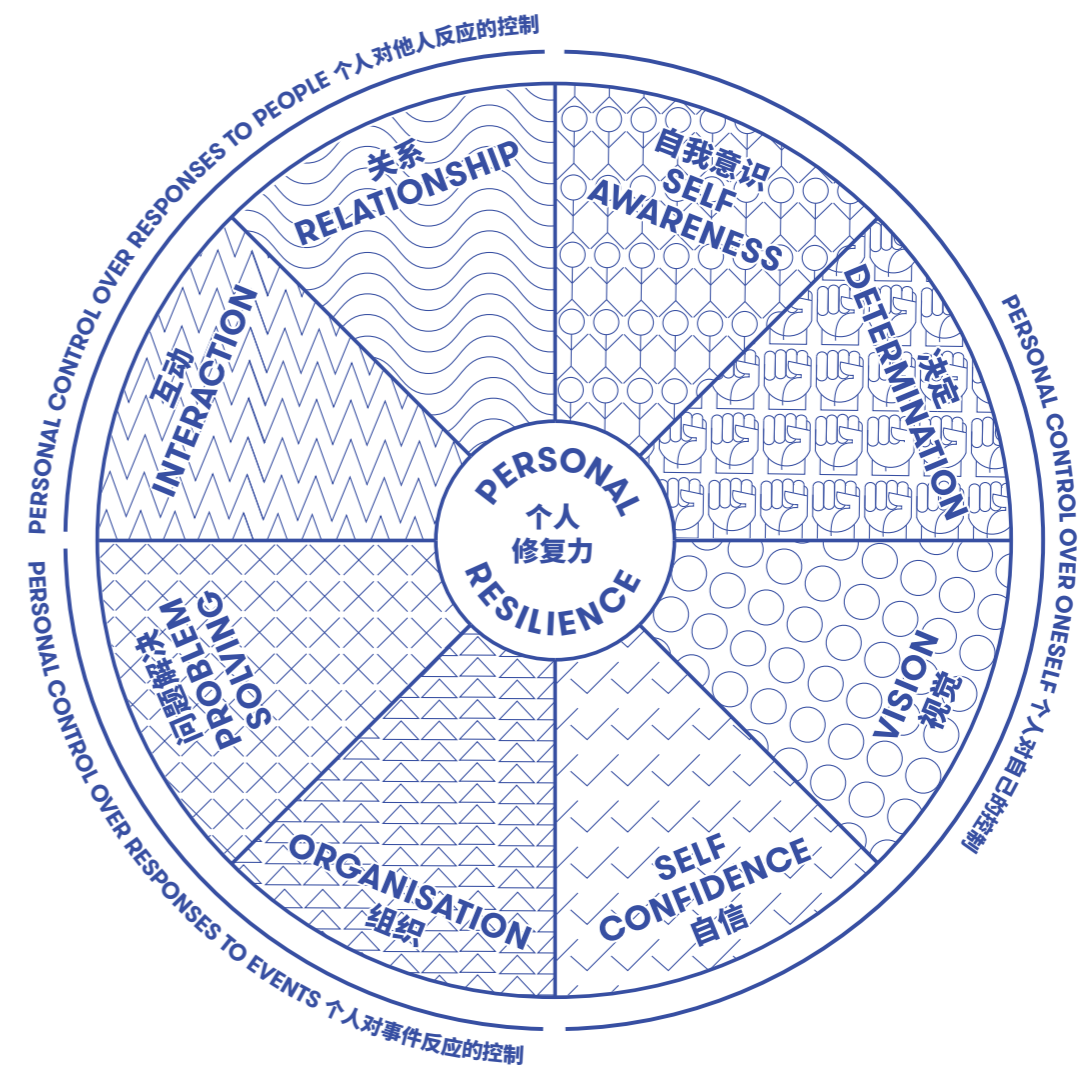
初级医生的成长发展需借助他们的主管。由于主管们也要加强他们的心理韧性,而如果他们知道如何做到这一点,他们就会从自己的方法库中选择另一套技巧来帮助初级医生,也会时时密切关注着他们,以便及时发现年轻医生可能会出错的信号。

心理韧性的强化包含八个要素,形成三种自我控制形式:控制自己、控制对事件的反应、控制对他人的反应。如右图所示。

## 结论

主管医生对这项心理韧性培训的接受度非常积极。培训尚在初期,因此还无从判断是否会对初级医生的韧性有重大提升。■

# The Resilience Development Framework 心理韧性发展框架



The Resilience Assessment Questionnaire (RAQ 40) is completed to identify where individuals may be vulnerable. 完成了《韧性评估问卷》(RAQ40),确定个人在哪些方面可能比较脆弱。

**Derek Mowbray** is an Organisation Health Psychologist who specialises in the primary prevention of stress at work. See [www.mas.org.uk](http://www.mas.org.uk). See, also, the elearning programmes in Personal Resilience at the same address.

**德里克·莫布雷**是一名组织健康心理学家,专长是工作压力的初步预防。参见[www.mas.org.uk](http://www.mas.org.uk),亦可见该网站上针对个人心理韧性的“e学习”项目。



# Bamiyan: Handicrafts and Women's Rights

## 巴米扬：手工艺复兴 带动创意产业进步

Bamiyan is central Afghanistan's largest city and a major junction on the historical Silk Road. In 2003, it was recognized as a UNESCO World Heritage Site for history and Buddha statues. Bamiyan is also home to carpet weaving, embroidery, carving and other traditional folk arts. Its exquisite carpets, clothing, weaving and other crafts are popular worldwide.

Afghanistan is one of the poorest countries in the world, and decades of war have left the country's economy in a chaotic state. About 80% of the population lives in rural areas. Its economy is dependent on agriculture and livestock rearing, estimated to account for 53% of national GDP. These statistics are played out in Bamiyan, where the rural poor predominate. Despite equality between men and women being inscribed in law, the notion of male dominance is deeply rooted, and the social status of women remains low. In recent years, Bamiyan's traditional hand-weaving and embroidery crafts have proved an important way for women to gain independence, fight for their rights and improve their social status. With the help of the government and international organizations, a large number of women have devoted their energy to the handicraft industry and to the making of carpets and clothing. Outstanding female entrepreneurs have emerged, and with them, factories, increasing the scope of production sites that employ local women, and only benefiting the women themselves, but also promoting the economic development and social progress of the city. In 2015, Bamiyan was chosen as a "City of Folk Arts and Crafts" by UNESCO, as a member of the Creative Cities Network.

### HANDICRAFT INDUSTRY CREATES JOB OPPORTUNITIES

Before this initiative, Bamiyan's economy was lagging behind, with uneducated women accounting for a large proportion of the population. Women's employment was the biggest challenge for urban development. In Afghanistan, weaving is a must-have skill for adolescent girls, with girls taught carpet weaving and embroidery by their mothers from the age of seven. In Bamiyan however, this handicraft has stepped beyond this to become the most important source of income for women.

Silkroad Bamiyan handicrafts was founded in 2010 by a commercial organization. Hand-embroidered items such as cushion covers, bedspreads, handbags, shirts and jackets are produced. To make these items is extremely time-consuming and labor-intensive, as the braided ropes are up to 15-20 meters long, and the weaving work can only be done outdoors. Production can only be carried out between spring and autumn. These complex handmade products require the participation of a large number of skilled craftswomen, so they generate employment opportunities for women in and around the region.



image: <https://zh.unesco.org/creative-cities/%E5%B7%B4%E7%B1%B3%E6%89%AC>

Some of these workshops have turned into enterprises. Relying on their own skills and wisdom, with the help of the relevant departments, women carry out all the business activities related to their handicraft. Masoma Alizada, president of the Bamiyan Association of Women Entrepreneurs, was the first female entrepreneur to set up a clothing factory in Bamiyan. She began by sewing her own clothes and moved on to accepting orders from the community. Now she is the owner of 25 stores, and has hired many women in embroidery and clothes production. Exquisite clothing and hand-made crafts bring her ever more business, and she has begun to participate in exhibitions across the country, and even abroad.

### THE HANDICRAFT REVIVAL DRIVES PROGRESS IN THE CREATIVE INDUSTRIES

From the point of view of inheritance and innovation of handicrafts, in order to meet different market needs, women need to keep designing new scenes, patterns, and decorations and apply them to the weaving process. They also apply their skills to a wider range of fields. The Bamiyan Peace Bear, for example, is a soft toy designed in reference to traditional culture. The bear wears traditional Afghan costumes, hats and accessories, each sewed by hand. Continuous innovation has breathed new life into traditional skills and used the power of business to spread local excellence to the whole world.

The revival of handicrafts has given new energy to Bamiyan's entire creative industry, just as the Buddha of Bamiyan and the town's many historical sites drive the development of local tourism. National and international sports events such as the Tour de Bamiyan Cycling competition and the Afghan Ski Challenge, have reshaped Bamiyan's image, and the newly established Bamiyan Cultural Centre has worked to promote culture and creativity as a tool for peace and economic development, and create a society that is free from conflict and more open than before.

Cultural heritage is the main resource for the development of tourism in Bamiyan. It need constant protection

so as to keep up the steady stream of tourists and bring in increased revenue. Bamiyan's cultural heritage was badly damaged by war and turmoil. A large number of Buddha statues were blown up by the Taliban, and the Cultural Landscape and Archaeological Remains of the Bamiyan Valley was on the List of World Heritage in Danger (LWHD). With the help of numerous international organizations, Bamiyan has made great progress in the protection of its heritage, and has solved problems of housing, commercial development, illegal excavation of cultural heritage, and improper use of heritage sites for military training through the improvement of transport facilities. In 2015, Bamiyan was identified as the Cultural Capital of the South Asian Association for Regional Cooperation (SAARC). In 2018, Bamiyan completed a Strategic Master Plan for Heritage Protection and organized a heritage management workshop that fully involved local communities.

Today, the Buddhas of Bamiyan, and traditional crafts such as carpets and embroidery have become local cultural symbols, and the city is working towards becoming a cultural and creative hub of the region.

### MULTI-PARTY ASSISTANCE FROM NATIONAL AND INTERNATIONAL ORGANIZATIONS

As an extremely poor country, Afghanistan's socio-economic progress depends on the assistance of non-governmental organizations and international organizations. Bamiyan's handicraft industry needs the help of all sorts of organizations.

The Afghanistan Rural Enterprise Development Programme (AREDP) has played a significant role in addressing rural women's employment. AREDP was founded in 2010 by the Ministry of Rural Rehabilitation and Development (MRRD), and aims to promote private sector development in rural Afghanistan through market-oriented rural development mechanisms, rather than by providing dependency assistance. It encourages individuals to set up micro-enterprises, such as clothing stores, shops, beauty salons, and machinery workshops, and provides professional skills training in marketing,

business planning, publicity, sales, and business promotion. In Bamiyan province, AREDP's work is concentrated the Bamiyan city, Yakawlang, Saighan and Punjab. It covers 299 small and medium-sized enterprises and 1,033 groups, creating jobs for more than 12,500 people.

In addition to AREDP, various national and international organizations have provided important funding assistance to Bamiyan. The Microfinance Investment Support Facility for Afghanistan (MISFA) is one of the most important organizations providing financial assistance to various locations. It has accepted financial support from the International Development Association (IDA) and the Afghanistan Reconstruction Trust Fund (ARTF). In 2013, IDA provided USD 50 million to the financing access project, which further supports MISFA as a catalyst for innovation to play a greater role in increasing access to and use of low-end financial services in the market. MISFA provides financial support to micro-lenders around the country, such as OXUS, which provides loans to individuals. It has already provided 60 million Afghani loans to about 800 customers in Bamiyan. ■

This essay has been reprinted from the *Observation Report on Creative Cities: The Development and Global Status of UNESCO Creative Cities Network (2004-2018)*



image: <https://mondo.org/ee/en/pood/afghan-teddy-for-peace/>



巴米扬是阿富汗中部地区最大的城市，历史悠久，是丝绸之路上的重镇。2003年，巴米扬因拥有诸多历史遗迹和“巴米扬大佛”被联合国教科文组织认定为世界遗产。此外，巴米扬有着古老的地毯编织、刺绣、雕刻等传统民间手工艺艺术，精美的地毯、服饰、织布等工艺品在世界上广受欢迎。

阿富汗是世界上最贫穷的国家之一，数十年的战争让整个国家经济落后、秩序混乱。据世界银行数据，阿富汗约80%的人口生活在农村地区，依赖农业和畜牧业，估计占国内生产总值的53%。巴米扬同样如此，农村贫困人口数量巨大，即使男女平等已经写入法律条文，但是男性占统治地位的观念根深蒂固，妇女的社会地位低下。近些年来，巴米扬的传

编织产品有靠垫套、床罩、手提袋、衬衫和夹克等手工刺绣用品。这些纯手工织品的制作耗时耗力，因为编织绳长达15至20米，编织工作只能在户外进行，一年中只有春天到秋天的时间可以从事生产。复杂的纯手工生产，需要大量有编制技艺的人员加入，这就为当地及周边地区的妇女提供了大量就业机会。

此外，部分女性从小的生产作坊逐步扩大成为企业家，她们依靠自己的技艺和智慧，在相关部门的帮助下，开展传统服装、地毯、工艺品、织布等与手工相关的商业活动，为妇女创造就业机会。巴米扬女企业家协会主席马索玛·阿利扎达就是第一个在巴米扬建立服装工厂的女性企业家。她最开始自己缝制服饰，接受来自社区的订单，如今她在市场上已经有25家店铺，雇佣了许多从事刺绣和服装

国际体育活动重新塑造着巴米扬的城市形象；新成立的巴米扬文化中心努力推动把文化和创意作为建设和平和经济发展的工具，建立一个没有冲突的开放社会。

在旅游方面，文化遗产是巴米扬发展旅游产业的主要资源，巴米扬通过不断加强对遗产资源的保护，来吸引游客为旅游产业增收。早期，巴米扬文化遗产毁坏严重，大量佛像曾遭塔利班炸毁，巴米扬山谷文化景观和考古遗迹被列入《濒危世界遗产名录》(LWHD)。在众多国际组织的帮助下，巴米扬在遗产保护上取得很大进步，通过完善交通设施，解决了住房、商业开发、非法挖掘文化遗产、不当使用遗产地用于军事训练等问题。2015年，巴米扬被确定为南亚区域合作联盟(SAARC)的文化之都。2018年，巴米扬完成关于遗产保护的总体战略总体规划，并组织遗产管理讲习班，充分让当地社区参与遗产管理。

如今，巴米扬大佛、地毯、刺绣等传统手工艺都成了当地的文化符号，巴米扬也正向着成为阿富汗的文化和创意中心这一目标努力。

## 国内和国际组织的多方援助

作为一个极度贫穷的国家，阿富汗的社会经济进步离不开非政府组织以及国际组织的援助。巴米扬的手工艺技能发展起来，同样离不开各个组织的支持。

阿富汗农村企业发展计划(以下简称AREDP)在解决农村妇女就业问题方面发挥了巨大作用。AREDP成立于2010年，由农村复兴与发展部(MRRD)建立，旨在通过以市场为导向的农村发展机制促进阿富汗农村地区的私营部门发展，而不是提供依赖性援助。它鼓励个人建立微型企业，如服装店、商店、美容院、机械车间等，并为小微企业提供营销、商业计划、宣传销售、业务推广等方面的专业技能培训。在巴米扬省，AREDP的工作主要集中在巴米扬市、雅考朗、塞甘和旁遮普地区。根据世界银行的数据，它覆盖了299家中小企业和1033个储蓄小组，为超过12500人创造了就业机会。

除了AREDP，国内和国际组织在资金方面给巴米扬提供了重要援助。阿富汗小额信贷投资支持机构(MISFA)是向各地提供资助的最重要的一个组织。向上，MISFA接受国际发展协会(IDA)和阿富汗重建信托基金(ARTF)的财政支持，2013年，IDA向融资准入项目提供了5000万美元，该项目进一步支持MISFA作为创新催化剂发挥更广泛的作用，以增加市场低端金融服务的获取和使用。向下，MISFA为各地小微贷款机构提供资金支持，如为个人提供贷款的OXUS，世界银行数据显示这个机构向巴米扬省约800名客户提供的贷款总额为6000万阿富汗尼。■

制作的女员工。精美的服饰和精湛的手工使她的服装生意名气越来越大，她开始参加全国各地的手工艺品展览会，甚至把本地优秀的手工编织艺术品传播到国外。

## 手工艺复兴带动创意产业进步

从手工艺的传承与创新来看，为满足市场的不同需求，妇女们需要在编织过程中不断设计新的图案、花样、纹饰，把传统技艺应用到更加广泛的领域，例如畅销海外的“巴米扬和平熊”就是结合传统文化设计出的玩偶熊。和平熊身着各式阿富汗传统服饰，每一款和平熊从布料到熊身体的缝纫、服装帽子配饰都是纯手工制作的。不断的创新为传统技艺注入了新的时代活力，并借助商业的力量把本地优秀的传统技艺传播到世界各地。

手工艺品的复兴牵动着巴米扬整个创意产业的进步，“巴米扬大佛”及诸多历史遗迹推动着本地旅游业的发展；“环行巴米扬”自行车骑行赛、“阿富汗滑雪挑战赛”等国内和

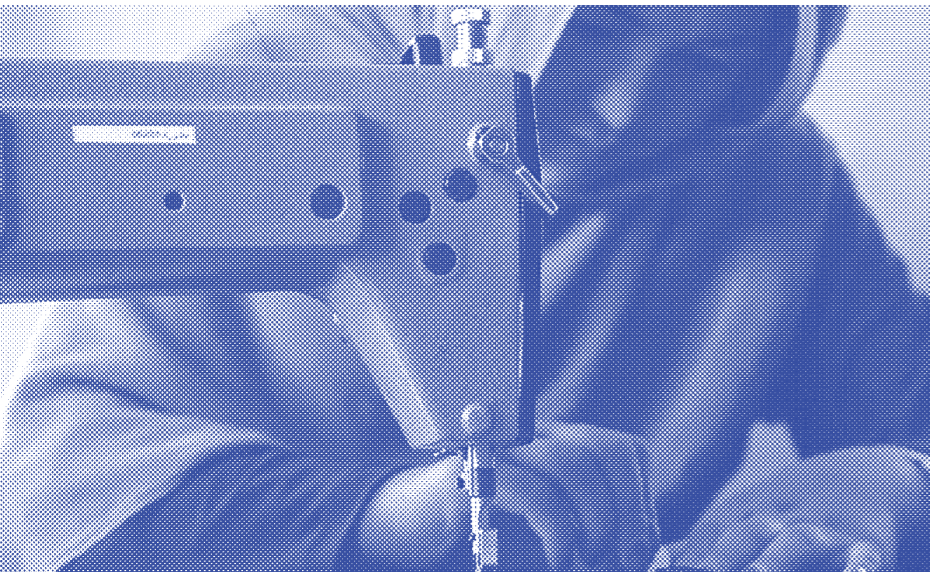


image: <http://www.worldbank.org/en/news/feature/2016/03/08/woman-entrepreneur-opens-first-women-run-apparel-factory>

统手工编织、刺绣技艺为女性独立、争取权利、提高地位提供了重要途径。在政府和国际组织的帮助下，大量妇女投入地毯、服饰、手工艺等手工制作当中，同时也涌现了一批优秀的女性企业家，她们开设工厂，扩大生产，雇佣本地妇女，不仅为妇女提供了就业机会，更推动着城市的经济发展和社会进步。2015年，巴米扬被联合国教科文组织授予“民间艺术与手工艺之都”称号，成为创意城市网络中的一员。

## 手工业创造大量就业机会

巴米扬经济落后，没有受过教育的妇女数量占大部分，妇女就业是城市发展面临的最大难题。在阿富汗，编织技艺是所有女孩成长过程中必须学习的一门手艺，一般在7岁时，由母亲教授女孩子地毯编织和刺绣技艺。而在巴米扬，这项技艺已经成为妇女获取收入最重要的来源。

成立于2010年的“巴米扬丝绸之路手工艺项目”是由一个商业组织开展的，它涉及的

# PERIOD. END OF SENTENCE.

## A PERIOD SHOULD END A SENTENCE, NOT A GIRL'S EDUCATION!

Over 1.2 billion women globally don't have access to feminine hygiene products because of low income, according to the Water Supply and Sanitation Collaborative Council.

The Pad Project—a California non-profit—aims to help them.

Earlier this year the NGO produced a 25-min Documentary distributed by Netflix <Period. End of Sentence > that takes viewers inside the start of a local pad factory. The short film aims to shed a light on global acceptance of menstruation, the lack of access to feminine hygiene products and the effect that localized solutions — empowered by women entrepreneurs — have on giving hope to their communities.

As the non-profit's website explains, many women in global, rural communities stop going to school when they first get their period. Women whose periods have affected their life negatively speak of the stigmas surrounding female health in the film.

Quoting the NGO's website: “When a girl gets her period in the United States, she may miss a class. When a girl gets her period in a developing country, she may never go to school again. But, unfortunately, that's exactly what's happening all over the world”.

"The Pad Project raises money for machines that help make sanitary pads. Each pad-making machine costs \$12,000. The nonprofit accepts donations to fund machines and those who educate local women in the art of making the pads. The machines are then donated to women in impoverished areas.

The inventor of the machine, Muruganantham, says: “The strongest creature on earth is not the elephant, not the tiger, but the girl.”

By providing villages with machines, they both help solve the hygiene problem, and can contribute to the area's economy and the income of female workers. “This machine helps both girls and women gain independence”.

Learn more on the project and how to get involved on: <https://www.thepadproject.org>

## 月事革命

一个PERIOD应当结束一句话, 而不是结束一个女孩的教育!

根据供水和卫生合作理事会的数据库, 全球有12亿多妇女因为低收入而无法获得女性卫生用品。

来自加州的非营利组织“护垫项目”旨在帮助这些女性。

今年早些时候, 这家非政府组织制作了一部由网飞公司发行的25分钟纪录片《月事革命》, 这部短片把观众带进了当地一家护垫工厂。短片旨在揭示全球对月经的接受程度、女性卫生用品的匮乏, 以及由女性企业家力推的本地化解决方案给她们所在社区带来的希望。

正如“护垫项目”网站上所言, 全球许多农村地区的女性在月经初潮时就开始辍学。在影片中, 一些因为经期而给生活造成负面影响的女性谈到了月经这个围绕女性健康的话题忌讳。

“护垫项目”网站上写道: “一个美国女孩来了月事, 可能会缺一堂课。一个发展中国家的女孩来了月事, 可能会缺一辈子课。不幸的是, 这正是全球正在发生的事情。”

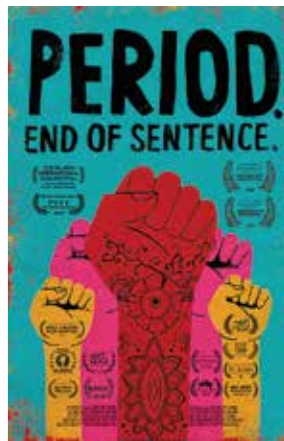
“护垫项目”为护垫生产机器筹集资金。每台制垫机器的成本为12000美元。该非营利组织接受捐赠, 所得资金用于资助机器和那些教授当地妇女如何制作护垫的人。然后, 这些机器被捐赠给贫困地区的妇女。

制垫机器的发明者Muruganantham说: “地球上最强壮的生物不是大象, 不是老虎, 而是女孩。”

通过为农村地区提供制垫机器, 它们可以帮助解决卫生问题, 也可以为该地区的经济和女工收入做出贡献。

“这台机器可以帮助女孩和成年女性获得独立。”

欲了解有关项目的更多信息及如何参与: <https://www.thepadproject.org>



“Period.End of Sentence.” is directed by **Rayka Zehtabchi**, and produced by **Melissa Berton, Lisa Taback, and Garrett Schiff**, Executive Produced by **Guneet Monga** (“The Lunchbox”) and a hardworking group of students, parents, and teachers from a small high school in Los Angeles, California. The film follows girls and women in Hapur, India and their experience with the installation of a pad machine in their village.

《月事革命》由**Rayka Zehtabchi**执导, **Melissa Berton, Lisa Taback**和**Garrett Schiff**任制片, 由**Guneet Monga**(《午餐盒》的制片人)和来自加州洛杉矶一所小型高中的师生家长们担任执行制片。影片讲述了印度哈普尔的女孩和妇女以及她们在村里安装制垫机的故事。





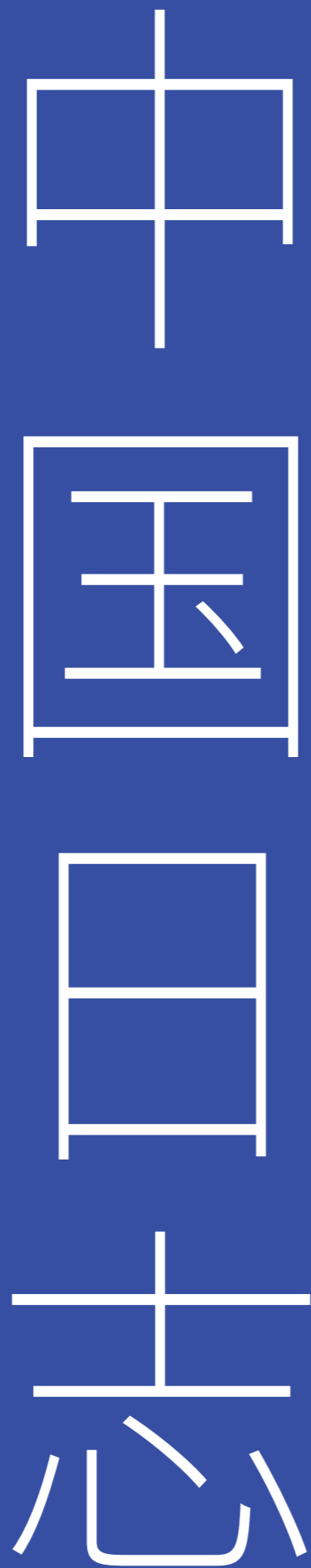
**THE SMALL PICTURE**  
微格局

Kachin State, northern Myanmar, is one of the poorest areas on the planet. Despite its desolation, kids still manage to play with leftover cardboard.

在缅甸北部的克钦邦，地球上最贫困的地区之一，孩子们还是给自己找到了玩具：废弃纸箱。

Photo/摄影：  
**Nicola Longobardi**, 2016





## Protection and Inheritance of Folk Crafts



**Chen Ping** — Global Vice President of the International Organization of Folk Art (IOV); Chair of IOV China; Academy of Culture Heritage and Creativity Jinan University  
作者: 陈平 (国际民间艺术组织全球副主席; 暨南大学文化遗产创意产业研究院院长、教授)

### 民间手工艺如何薪火相传

The development and evolution of folk arts, especially craftsmanship, is testament to the course of human development. These rich arts can only be generated, grown and perfected in tune with nature. They are in essence the crystallization of human wisdom. However, with the development of high technology and big data in the 21st century, lifestyles, ways of thinking, aesthetic concepts, and consumption habits have all undergone tremendous changes. The electronic era bears a lot of responsibility for disrupting our traditional ways of living and our sense of order. New lifestyles may be easier and more comfortable, but this has come at the expense of severing links with the past.

Industrialization, low-cost high-volume production methods, and the intervention of modern science and technology, have replaced many traditional handicraft skills. The decline of craftsmanship has lost us the traditional handicraft studios and family production sites that have a hard time acclimatizing to the modern marketplace. Traditional aesthetics are very different from modern

consumption and aesthetic forms. What to do when the older generation of craft masters passes away? With a shortage of apprentices, traditional handicrafts are left with no successors. Facing crisis and challenges, a decline seems irreversible.

The resurrection of folk art and crafts requires a reproduction of form and space. If a craft can be integrated into contemporary life, it can be improved upon and upgraded in line with the aesthetic standards and practical needs of today's consumers. Crafts that have gone through this process can indeed prosper.

Since 2013, I have had the opportunity to participate in Guizhou folk arts and crafts projects. We organized an international team of artists and scholars to go deep into the southeastern Qian region of Guizhou, conducting research into the work of silversmiths, Miao embroiderers, batik, and horsetail style practitioners, tin crafts and the ancient paper-making tradition of Dan Village Stone Bridge. The artists' work is undoubtedly exquisite, yet due to weak cultural understanding and design ability, they

are faced with a limited sales capacity, coupled with a lack of understanding of the needs and aesthetics of contemporary consumers. These handicrafts are now only passively performed. With the help of the government and designers, they can be upgraded and perfected for market. With this in mind, we conducted training with the Guizhou Provincial Economic Information Committee and the Guizhou Provincial Small and Medium Enterprise Bureau in conjunction with local craftsmen and women. Training covered the basics of modern market awareness, design concepts, and business models. We also used the platform of the International Folk Art Fair sponsored by the Guizhou Provincial Government to introduce international resources to the region, enabling artists from Guizhou to interact with their counterparts abroad, internationalizing their designs and production methods as well as their use of color and materials. Cultural backgrounds bounced off each other, and local craftspeople sought out better and more practical designs for the market.



We followed this by taking a few embroiderers on a trip to Europe, accompanying a group of officials. On the study tour, they were able to showcase their work. This not only enhanced their self-confidence, and national pride, but also opened their eyes to some of Europe's best art work and design standards. The delighted participants returned with fresh energy to improve their designs, and have now even begun taking orders from famous brands such as Hermes, with government support. Society efforts have greatly improved the economic situation of these craftspeople. Design capabilities have improved, and creative abilities stimulated. This is exactly the kind of benevolent development direction that was called for.

Our actions have enabled me to summarize the following considerations:

1. The cultural heritage of various ethnic groups represented by folk art, especially handicrafts, is endangered and fragile at a generalized level. This means we should put rescue, protection, facilitation and inheritance before other considerations.

2. Intangible cultural heritage, especially regarding the rhythms of folk art, mean we should avoid static or rigid forms of protection. We should not seek to change a tradition's internal laws or nature. Under the premise of evolution, we should try our best to seek out productive forms of protection, and help crafts develop sustainably and gradually. Development should fit the values and aesthetics of people today. The government and relevant organizations should give positive policy guidance, technical support, and facilitation of interaction with related sectors such as tourism. Meanwhile, the living standards of inheritors should be stimulated alongside their enthusiasm and ability to innovate.

3. We should adhere to "creative industrialization" and encourage the momentum for structural upgrades. Independent innovation is not only reflected in the choice of history and culture, but also in the integration and application of cultural materials, and this transforms it into a tangible and specific consumer experience models, in line with the market and the audience, and ultimately realizes improvement and scale of the economy in the industrial chain.

4. It is necessary to set up inheritant schooling or vocational and technical schools, so that young people who cannot enter the university may master folk craft skills giving them the basic means of survival. Hand in hand with this, we should promote the common recognition of these traditional handicrafts by society. We should appreciate that inheritance is a normal development of social order.

The development of history is a process of repeated and staggered replacement of old and new, but our mission and responsibility is to retain the best of the past, preserve it, and hand it on to our descendents, so they can continue to spread shining examples of traditional heritage. ■

Guizhou is a province in southwest China known for its beautiful landscapes. It accommodates more than 40 ethnic minority groups from a total of 55 in China, making its culture spectrum extremely diverse. Yet the province has long been trapped in poverty and underdevelopment. In recent years, its abundant, diversified folk culture has become one of the main attempts from local government to boost its tourism and growth. Since 2013 many exhibitions and competitions have been held, welcoming new inspiring ideas to help preserve its folk arts, and encouraging local craftsmen and women to communicate with modern society demands. These events have been a driving force for the development of Guizhou's folk arts and crafts industry, and therefore for the region's employment and economic growth.

世界上现存的民间艺术,特别是手工艺技术的发展与演变历程是人类发展历程的见证,是人类在与大自然的相处过程中不断成长、不断完善自我,进而创造出来的灿烂而丰富的艺术,是人类的智慧结晶。但是,随着21世纪高科技的发展以及大数据时代的到来,人们的生活方式、思维方式、审美观念、消费习惯都发生了巨大的变化。可以说,电子时代彻底打乱了传统的生活方式与秩序,新的生活模式在给人们带来便捷与舒适的同时,也进一步解构了以往的时代。

工业化、低成本、大批量的生产方式,现代科学技术的介入,取代了很多传统的手工艺技艺,因为产业的衰退而导致许多手工艺技艺的锐减,传统的手工作坊以及家庭传承的封闭式小型生产方式,已经难以适应当今的市场需求,传统的美学观念与当下的消费与审美观念有着一定的差距,更大的困境是随着老一代师傅的离世,学徒与传承人的不足,导致让传统手工艺后继乏人。全球越来越多的传统手工艺技艺面临着危机和挑战,有的技艺已经以不可逆转的态势慢慢消逝。

民间艺术和手工艺的复活,需要生活形态和生活空间的再现,假如能够将其融入到当代生活中,进行改良、提升,使之更加符合当代消费者的审美标准和实用需求,更加富有时代的特色,那么有些技艺还是能够良性发展的。

从2013年起,我有机会参与贵州省民间手工艺的相关项目。我们组织了一个由艺术家和学者组成的国际团队,深入到黔东南地区,对当地的银匠、蜡染、苗绣、马尾绣、锡绣还有丹寨石桥造纸等丰富多样的民间手工艺术进行了调研。调研发现,很多艺人的技术都非常精湛,但是由于文化水平与设计能力较弱,市场销售能力有限,再加上缺乏对于当代消费者的需求与审美观缺乏了解,他们的手工艺品一直停留在被动的维持阶段,必须借助政府的力量以及一些设计师的帮助来进行提升与完善。于是,我们与贵州省经济信息委员会、贵州省中小企业局联合对手工艺人进行了培训,培训内容涵盖当代市场的需求、设计理念、经营模式等范围。后来我们又借助贵州省政府支持举办的国际民间艺术博览会这个平台,将更多国际资源引入当地,让贵州省的民间艺人与更多的国际手艺人进行交流与互动,让他们的设计样式、制作方式、色彩运用、跨材质与多用料以及文化背景发生碰撞,并通过举办类似“国际手工艺创意培训”等计划让当地手工艺者了解、学习到更多更适合当代生活美学和实用性的创新设计。

之后,我们还带着几位绣娘到欧洲去,跟随政府的官方访问团队、政府领导一起出访,展示她们的艺术作品。这样做不仅使她们增强了自信心,提升了民族自尊心,而且让她们大开眼界,看到了欧洲最时尚的艺术作品和设计水准,她们非常高兴。回来后,几位绣娘在新的创作中有了很大的提升,有的甚至开始为爱马仕等著名产品进行加工、承接订单等任务,当地政府也给予了很大的政策支持。经过社会多方努力,这些手工艺人的经济

状况有了很大的改善,设计能力都得到了提升,新的创作能力也被激发出来。民间艺术因此也就得到了良性的传承与发展。

通过这些实践,我总结出如下一些思考:

一、以民间艺术为代表的各国各民族的文化遗产,特别是手工艺技艺普遍存在着濒危性和脆弱性,这决定了我们必须把抢救、保护、整理和传承放在第一位。

二、非物质文化遗产特别是民间艺术的活态流变性,决定了我们要尽可能避免以静止、凝固、僵化的方式去保护,而是应该在不改变其内在规律、原有形态的自然演变的前提下,尽可能寻找生产性保护的方式,助力其有序发展并有能力可持续发展,其发展的核心要适合当代人的价值观与审美观。政府与有关组织层面应该给与积极的政策引导、技术支持,甚至要与旅游开发等产业作良性互动结合。同时,必须提升传承人的生活水平,激发其传承的积极性与创新能力。

三、坚持“创意产业化”和产业结构升级。自主创新不仅体现在对历史文化的选择上,更体现在文化素材的整合运用上,并使之转化为有形的、具体的消费体验方式,与市场受众接轨,最终实现产业链的完善和规模经济。

四、要设立传承人学校或者职业技术学校,让一些无法进入大学的山区青少年通过职业技术的培训,掌握民间手工艺的技术,作为生存的基本能力和手段;促进社会对这些传统手工艺的共同认知,使传承作为社会有序的一个常态化发展。

历史的发展总是新旧事物循环反复、交错替代的过程,但我们的使命和责任就是要留住那些辉煌而灿烂的内容,把它们保存好,完整地交给后人,让它们继续散发原有的光芒。 ■

我国贵州少数民族文化中蕴含着丰富精湛的民间艺术和手工艺,如苗绣、锡绣、银饰等。近年来,在政府的主导和支持下,当地接连举办各种展览和大赛,以求保存并发展当地的传统手工艺。2016年在贵阳市举办的中国(贵州)国际民族民间文化旅游产品博览会,邀请到了百余位来自五十多个国家的手艺人、学者及政府官员,让贵州当地手艺人有机会与国外同行同台展出、交流技艺,苗绣、银饰、黄平泥哨、安顺木雕、大方漆器、思州石砚、芦笙制作、玉屏箫笛等12项国家及省级“非遗”技艺传承人还做了现场展演。当地还年年举办能工巧匠选拔大赛,激励手艺人提高技术和设计能力。这些活动已成为贵州省创业带动就业、带动广大农民增收致富,推进小微企业发展的重要平台。





# The Culture & Industry of Place-Making

ARANYA BEIDAIHE

## “场所营” 的文化与产业

北戴河阿那亚

By **Beatrice Leanza**  
作者: 毕月

With so called “new first tier cities” — Hangzhou, Wuhan, Zhengzhou, Xi’an among others — raising in placement for most liveable, affordable cities among Chinese graduates, one wonders what long-term repercussions the controlled unfolding of the decremental course that accompanies their ascent will effect on China’s urban chessboard. This process of degrowth is meant to depressurise the four coastal cities (Beijing, Shanghai, Guangzhou and Shenzhen) both demographically and environmentally, and convert their long-hold competitive advantage into qualitative lifestyle given by higher-paid employment and less captivating working and commuting hours in the newly rising mini capitals — cities of commerce, history and culture, right like the “old first”. Over the past five years this inverse migration (think conversely the floating populations that built the great urban miracle of the past 40 years) has been soaring, with prospects of work and the lure of the future moving away from the horizon of Chinese “big apples”, into the smaller scale, less stressful reality of the myriad cities dotting the expanse of China’s territory.

At the same time, agendas targeting rural reconstruction are thrusting the “local” out of its comfort zone — without processual methodology guided by socially and environmentally mindful designs of self-empowerment, the imperatives of territorial regeneration as “countryside beautification” can pose an alarming threat to paths of self-growth normally fostered by communal participation in the restructuring of vernacular and culturally-bound notions of economic activism. The clashing course of deurbanization and ruralisation can

have potentially erosive, if not a completely corrupting effect on “place-making” process that seek to leverage cultural and social systems of relation to regenerate linkages between territory, economic prosperity and occupational self-fulfilment for both existing and future generations.

Looking back at the past 30 years, the bond between culture and branding has been perhaps the most insidious and contagious in its territorial trademarking — but as populations and investments move out of first tier cities, what are the risks for the next decade? Let’s take the case study of Aranya Beidaihe to ponder about opportunities and positive reinforcement.

Monumental both in scale and pace of construction, China’s cultural building frenzy is often tainted by criticism around its underlying motivations. Whether spurred by city administrators eager to channel governmental funding into new urban growth or by wealthy proprietors fulfilling personal agendas of proto-philanthropic nature, the ambitions of such endeavours are seldom accompanied by the professionalism required to run their programming on a regular basis. The Dune Museum designed by Beijing-based office OPEN Architecture and inaugurated on October 13 on the northern coast of Qinghuandao city begs to differ. The project is located inside the Aranya Gold Coast Community a sprawling seaside resort of villas, condos and hotels, 300km from the capital. Development took up speed after 2013 when the land, on which a jockey club with a golf course and private residences already existed, took up new ownership. Aranya covers 220hectars

off the seashore in the district of Beidaihe — with thin yellow sand and shallow waters the area became a popular destination for party cadres in past decades and now for affluent families from the Jing-Jin-Ji mega region in search of escape from congested cities.

Three years in the planning, the Dune Museum has opened in 2018 in partnership with the Ullens Centre for Contemporary Art (UCCA), Beijing’s prime independent venue for the arts that is to run its programming for the coming five years. This strategic alliance was spearheaded by Ma Yin, the 44-year-old founder of Aranya, whose mindful leadership has cultivated enthusiastic following from the local architecture scene. The Dune Museum sits a hundred meters from the shore under the sand thus blending with its natural surroundings. The organic cave-like structure covers 930sqm encompassing seven interconnected indoor galleries and three outdoor spaces, the latter forming tunnel-looking openings facing the sea. The softly rounded contours of white walls, doors and windows, albeit unfriendly to the hanging of artworks, land a comfortable sense of intimacy and domesticated feeling to the spatial experience. The personable, retreated character of this type of architecture echoes along the shore in a handful of other projects Ma Yin has commissioned over past years. All are, or will be, small to medium sized spaces specifically designed for communal activities organized for both the property owners, currently amounting to over 2000 households, and temporary vacationers that number yearly in the hundreds of thousands. Two projects by Vector Architects launched in 2015 earned the site



semi-cult status, as videos went viral shortly after their opening. The Lonely Library, so dubbed by popular vote due to its location, is a neo-brutalist elongated concrete block of 450sqm with warming wooden interiors and a see-through façade of glass bricks and foldable eaves facing the water that is regularly operated by Sanlian Bookstore, one of China's largest publishing outlets. It plays host to just a few of the hundreds of events that Aranya organizes yearly on its grounds — from classical concerts, theatrical performances and readings with renowned artists and productions, to large scale music festivals and sport competitions. The Community Hall is an elevated white volume of 270sqm with a high-pitched roof resembling a church and clean geometries à la Aldo Rossi, that, like the library, is regularly besieged by architecture buffs, travellers and soon-to-be-wedded couples. Together with a not yet fully operational educational centre by Zhang Li of Team Minus, other confirmed projects soon to enter construction include a music hall, a theatre and a bird-viewing tower by respectively TAO Office of Hua Li, DnA Design and Architecture of Xu Tiantian and Zhang Ke's Standardarchitecture. Having visited the site two years prior, it is evident that the real estate fabrica behind the venture is showing no signs of abating, more towers ascending rapidly behind the otherwise scattered gems that constellate the beach. However, this is without doubt a new-generation entrepreneurialism that attempts manoeuvring with more sophisticated ambitions in a sector that is increasingly subject to restrictive regulations in a temperamental financial market. Ma Yin's ultimate visions align with those of the architects he handpicks and supports, a coeval generation of cultural producers that strives for a higher standard of critical practice, a meaningful relation to 'place', and the reterritorialization of social bonding that is otherwise fast eroding in major urban centres. An internationally recognized group of architects who are collectively contributing to articulate a building language of individuality, of rooted aesthetic and conceptual expression, they are those the younger generations are looking up to.

Creating the actual space and

demand for a culture and quality of design on a mass scale as big as China's might take time, but within an imperfect picture Aranya embodies a positive tangible precedent that can foster measurable future impact.

With a newly completed centre by Shanghai-based architects Neri&Hu, Aranya's own branding is built on a refreshed yet vulnerable premise, at least so far. While Ma Yin has engineered an updated model for its own real-estate business, that is one centred on developing tertiary market assets, i.e. service for tourism, one wonders whether the approach could spur a new cultural economy of territorial edification with and for the surrounding areas and region, so incubating a new type of destination: one through which younger, like-minded, educated urbanites can search for meaningful engagement with the making of a lasting "sense of place". ■



中国内地的“新一线城市”，如杭州、武汉、郑州、西安等，越来越被认为是中国毕业生心目中最为宜居、最容易谋求发展的城市。我们不禁好奇，随着这些城市的崛起，以及随之带来的反向迁移进程的不断展开，中国的城市布局将受到怎样的长期影响。这种反向增长的意图是从人口和环境两个方面减轻四个一线城市（北京、上海、广州和深圳）的压力，并将它们长期保有的竞争优势转化为一种在新兴的迷你城市里能够获得的优质生活方式，这种生活方式是由高薪就业、较少的工作时间和通勤时间所决定的，这些新兴迷你城市是商业、历史与文化城市，就像“老一线城市”一样。在过去五年里，这种反向迁移（回望过去，人口流动创造了中国过去40年来巨大的城市奇迹）一直在飙升，将对工作的展望和未来期盼都带离中国的“大都市”视野，转而进入中国这片辽阔疆土上无数小型城市中规模更小、压力更小的现实。

与此同时，以乡村重建为目标的议程正在推动“当地人”走出舒适区——没有基于社会和环境方面自我赋权的精心设计为理论指导，那些“乡村美化”复兴项目的势在必行，会给乡村的自我成长之路构成令人担忧的威胁，因为自我成长通常以共同参与方式、在构建本土与受文化制约的经济行动主义观念的过程中生成的。逆城市化和乡村化的冲突进程会对“场所营造”进程产生潜在的（如果不是完全彻底的）侵蚀，而“场所营造”的目的就是影响文化和社会关系体制，重建区域、经济繁荣、当代及后代职业自我实现之间的联系。

回顾过去的30年，文化和品牌之间的联系也许是在区域特征中最隐晦、传播最广的元素，但随着人口和投资逐渐从一线城市转出，未来10年将面临什么风险？我们以北戴河阿那亚为例来思考机遇与积极强化。

中国的文化建筑在规模和速度上都让人惊叹，但背后的动机常常受到质疑。不管是由于城市行政力量急于将政府资金投入新的城市建设，还是由于有钱的业主们有心回报社会，这些努力的雄心背后大多缺乏运营所需的专业精神。但沙丘美术馆是个例外。此项目由北京的OPEN建筑事务所设计，去年10月13日在秦皇岛市北部海岸正式落成。它所处的阿那亚黄金海岸社区是一个由别墅、公寓和酒店组成的海滨度假胜地，距北京300公里。2013年，这里已经有一家拥有高尔夫球场和私人住宅的赛马俱乐部，当年这块地产权变更，之后即开始快速开发。阿那亚占据了北戴河海滨约220公顷的地块。这里的黄沙、浅水让它在过去几十年里成为政府要员乐于消暑的地方，近年来也成为京津冀地区富裕家庭逃离拥挤城市的休闲地。

经过三年的规划，沙丘美术馆与尤伦斯当代艺术中心合作，于2018年正式开放。尤伦斯艺术中心是北京最重要的独立艺术中心，将在未来五年内担当沙丘美术馆的运营。这个战略联盟是由44岁的阿那亚创始人马寅发起的，在他的领导力号召下，已经有了很多当地建筑界热情的追随者。沙丘美术馆坐落在距海岸边100米的沙丘之下，与自然环境相融合。这座有机洞穴状的建筑占地930平方米，包括7个相互连接的室内画廊和3个室外空

间，后者形成了面向大海的隧道式开口。虽然柔和的白色墙壁以及门窗轮廓并不完全宜于悬挂艺术品，但却给人一种舒适的亲密感和对空间体验的归属感。建筑具有鲜明的个性，并且与岸边其他建筑形成呼应。那些建筑是马寅在过去几年里陆续委托建造的，它们都是或者都将是中小型空间，专为目前的2000多名业主以及每年成百上千的临时度假者举办公共活动而设计。直向建筑设计事务所在2015年完成的两个项目，视频在开幕后不久就在网上疯传，让这里成了大神级网红。因其地理位置而被民众投票得名的“孤独图书馆”，是一座野兽派风格的被拉长了的混凝土大楼，占地450平方米，里面有暖色的木质内饰，外墙使用透明的玻璃砖，可折叠的屋檐面对着水域。图书馆由中国最大的出版社之一三联书店运营，用于举办阿那亚每年安排的数百项活动，从古典音乐会、戏剧表演、著名艺术家的朗读会与作品鉴赏，到大规模的音乐节和体育比赛等。社区大厅是一个占地270平方米、被抬高了的白色体量，有一个像教堂一样的高耸屋顶和像阿尔多·罗西作品那样清晰的几何形状。和孤独图书馆一样，这里经常挤满了建筑爱好者和游客，很快也将成为婚礼照片拍摄地。除了尚未完成的简盟工作室（张利）设计的教育中心，还有一些即将进入建设阶段的项目，包括一座音乐厅、一个剧院和一个观鸟塔，分别由迹·建筑事务所（华黎）、DnA建筑设计事务所（徐甜甜）和标准营造（张珂）设计。自从笔者两年前实地参观过之后，很显然，阿那亚背后的房地产公司并没有任何任何衰退的迹象，在像分散的宝石一样装饰着这片海滩的建筑背后，更多的高楼正在快速崛起。但这无疑是一种新生代的创业精神，这种创业精神试图在日益受到限制性监管的反复无常的金融市场中，以更成熟的雄心来周旋其中。马寅的“终极愿景”与他挑选并支持的建筑师的愿景一致，他们是同时代的文化生产者，追求更高的批判性实践标准，追求与“场所”的意义关联，以及社会纽带的重新地域化，否则这种纽带将在主要城市中心里迅速消失。这是一个在国际上享有盛誉的建筑师群体，他们共同致力于表达个性化、传递根植的美学概念，他们是被年轻一代引为榜样的群体。

要在像中国这样大的规模上创造设计文化和品质的实际空间和需求，可能还需要时间，但在不完美之中，阿那亚至少展示了一个积极的对将来有显著影响的先行案例。

随着上海如恩建筑事务所设计的一个中心新近建成，阿那亚自己的品牌建立在一个清晰却脆弱的前提之下，至少目前是这样。虽然马寅为自己的房地产业务设计了一个更新模式，即以开发第三方市场资产（即旅游服务）为中心的模式，但我们不禁会思考，这种模式是否能激发一种新的文化经济，促进与周边地区的地域建设，从而孕育一种新的目的地类型：通过这种模式，志同道合、受过良好教育的年轻城市居民可以寻求有意义的活动进行参与，营造持久的“场所感”。■





# At Xiaomi, Designers are their Own Party A

## 在小米,设计师是自己的甲方

Liu De and Liu Guanzhong  
刘德 vs. 柳冠中

In early 2019, Design magazine hosted a discussion between its chief editor Liu Guanzhong, one of the first professors of art and design at Tsinghua University, and Liu De, co-founder and senior VP at Xiaomi Technology. Their topic was the Xiaomi model and eco-chain, how design drives Chinese businesses, and how designers and design can encourage social responsibility in business. The dialogue was published in March 2019 and, after revisions, included here.

2019年初,《设计》杂志邀请清华大学美术学院教授(博士生导师、首批文科资深教授)、《设计》杂志总编柳冠中与小米科技联合创始人、小米集团高级副总裁、集团组织部部长刘德展开了一场对话。对话围绕“小米模式”、“小米生态链”、设计如何驱动中国企业、设计师及设计驱动型企业的社会责任等话题展开。对话原载于《设计》杂志2019年3月刊,经编辑后收入本刊。



**Liu De:** While Xiaomi's handset division has an exclusive design team, all 200+ other product categories have to make do with just 14 designers between them. If it looks like we are more efficient than most, this is because at Xiaomi, there is no Party A. Our designers work for themselves. This distinguishes Xiaomi as a company and as a design firm.

The Xiaomi model is all about “thinking before you leap”. It struck us that Japanese white goods were just too plain and ordinary. Apple was too hi-tech. Our designers were asked to position themselves in the middle. We went for “simple modelling and direct functions” at the expense of useless decoration. This meant our products were designed in a more consistent way, and across categories, they shared a design vocabulary. Over time, Xiaomi created its own language.

**Liu Guanzhong:** When designers join Xiaomi, it seems they can forge their own path by negotiation and that this kind of system building is welcomed and supported by the Xiaomi machine.

**Liu De:** It's market competition that drives the development of such a system. At its inception, Xiaomi's main business was mobile phone handsets, a keenly competitive sector. We have forced to find competitive anchors in technology, supply chain, and capital, to name but a few. Design is an important link in this. Xiaomi has always had high requirements of design. I myself started out as an industrial designer. In fact two of the original seven founders were designers before. So every design decision went straight to the top. The designers we like best either have a lot of experience and training, or they are naturally talented young people. Each type has its advantages. You can send those with experience to communicate with factories and move projects forward. But young designers are smart, and once on the right track, grow rapidly. If we have both types, we are happy.

At Xiaomi, we set out to empower our designers. Xiaomi's eco-chain gives designers an important say in product definition, design, and cost control. Sometimes, a single designer will have a demand that put costs up enormously. This is the price of respecting design. Designers learn to be better at cost awareness on the job. To conclude, we gain from market competition, and also from internal organization and the spirit of teamwork.

**Liu Guanzhong:** What is the strongest mechanism in Xiaomi's eco-chain?

**Liu De:** First, Xiaomi's eco-chain is based on its platform. Second, Xiaomi does not control any of the companies in its eco-chain. Innovative companies that grow under this distribution framework owe it all

to themselves. The two parts of the mechanism are sharing and being hands-off. Thirdly, we are dealing with a “business network” or “community” in which we expect people will help each other, find a team and generate trust naturally. It is companies like these that constitute Xiaomi's eco-system. Today, Xiaomi is the magnifier of these companies, and in the future, when there are tens of thousand of them, and each is making billions, they will magnify Xiaomi in turn.

**Liu Guanzhong:** Most design companies in China are SMEs, playing to the tune of their client or Party A. They are engaged in what I call a “guerrilla war”. Shoot and move on, with no time to stay still and simply grow. Ministry organized pitches or competitions are beyond them, as only larger companies have the capacity to win. Even with the right will, their environment means they do not have the power to participate. So I really admire the mechanism developed by Xiaomi. It is an enterprise, but also a design-driven enterprise, poles apart from a market-driven one. Personally, I feel this benchmarks a route to transformation for the next 10-20 years. It is critical for an enterprise to give design as much space as possible.

**Liu De:** Over the past 20 years, the Chinese design industry has stimulated designers in many ways. The early explorers and torchbearers, represented by Professor Liu, introduced a philosophy from overseas and inspired people to appreciate industrial design for the first time. Then, the transfer of the global manufacturing industry to China brought in a western technical awareness. Today, Chinese industrial design has a strong stamina, fed by the constant presence of industry. On top of this, so many Chinese students study abroad and then return. Unlike the early torchbearers, they are thinking practically about their careers. And with today's tide of consumption, people are starting to demand “good things”. I believe this injects Chinese design with enormous stimulus.

Today, as a designer in China, I feel the industry has a bright future. Importantly, once the motivation is in the right place, a golden era is ahead of us. Emerging consumption and mature consumers drive claims to quality products, and attract more and more practitioners and graduates. The Made in China brand is looking sharp. In my eyes, we are looking at a further 20 years of sustainable development in manufacturing, and considerable support from the government for designers.

**Liu Guanzhong:** We've worked hard for 40 years, and now can reap the benefits of the progress China has made. We have design





platforms and well-trained designers, we have CEOs with a better design sense, and companies that recognize the value of design, like Xiaomi. Design companies are working in closer cooperation with enterprises, in a possibly to sign longterm strategic cooperation agreements (agreements of 3-5 years for example). This mode is now clearly a new trend, impossible at an earlier stage. Design companies should enter solid cooperation with enterprises to avoid the attrition of an endless “guerrilla war”.

Design companies cooperating with enterprises in this way should be encouraged by the government, whether with awards or with tax exemption or with a reduction on their rent in a new design park, as forms of bundled cooperation. It will enhance enterprises' recognition of design, and designers' all-round involvement will also serve as training for them. As a result, designers' knowledge and service level will improve. In the future, public opinion guidance shall be added, and the government's support will stretch from capital support to policy support.

**Liu De:** China is likely to enter an era of “in-house” design. Why? Because today's product competition is about comprehensive competition, and it creates an unprecedented close combination of the technological process with processing and manufacturing cost. A fully “peripheral” design company cannot “get into it” because it cannot master that much information. As I see it, the in-house phenomenon emerges when comprehensive competition begins. In the upcoming decade, such arrangements will seem an enormous opportunity, because this is new progressive development for China. It develops from problem-solving to fine detailed output, leading on to diversified solutions.

**Liu Guanzhong:** Yes. Today's small companies are completely different from how I envisage future small companies. Only with support and

by adding other services will they survive. In-house design companies will grow alongside them. Many enterprises prefer to find professional design cooperators rather than all-rounders. In-house designers are being well knitted into internal management systems.

**Liu De:** And what is more, in the next decade, more fine-tuned lifestyles will emerge. A friend came to me a few years ago with a well-designed fan. He said it was custom-made, and he had bought several. This touched me. For a designer, 20 years ago, making a fan could not feed you, but today, if you can make a well-designed fan or cup, you can live well. We are definitely in a new era of consumption.

There will be huge market opportunities. Designers prefer well-designed products. Professional small companies that can focus on beautiful details will prosper are ideal. Although China will experience a large-enterprise era, in the future, it may go the way of Japan, where many small companies will appear to satisfy the need for diversity of commodities and social life. This stands for a kind of social maturity.

**Liu Guanzhong:** On a higher level it means not having so many general small design firms, but rather having more companies focusing on particular areas.

Speaking of the fine life, it is easy to mistake this for the need for lavish and luxurious “finesse”. As a designer and design-driven enterprise, we need to take a position in this discussion. We want to encourage not luxury or status, but service. The end products are just carriers of this. We need to lead the move towards healthy consumption, rather than a quest for status per se: a kind of simplicity of lifestyle.

Chinese design is at a crossroad. In these forty years, although we have focused on imitation, we have learned a lot. Now we should plan the next steps. How to lead in business, and how to lead designers needs ever more communication. Guiding public opinion is critical. Designers have a role to play here. With changes in modern lifestyle, design is renewed. Meanwhile, designers should help maintain social norms, promote moral advancement and further ethical stability. And as design itself leads to consumption, in addition to satisfaction, restrictions are needed to some extent. Objectively speaking, designers are in a leading role, and should be active participants in the formulation of social rules. ■

**刘德:** 在小米,除了手机有单独的一支设计队伍外,其他200多个产品品类的设计师只有14人。如果说在别人看来我们效率高,那是因为在小米不存在甲方——设计师就是自己的甲方。这是小米作为企业和设计公司最大的差异。

小米模式总结起来有几个特点。第一,动手之前把事情想清楚。比如说我们认为日本白电太“素”,苹果的科技感又太强,于是就让大家去抓这两者之间的调子。第二,重视基础功能。在设计时把80%的注意力都放在产品的基础功能上,改掉没用的装饰,也就是“造型简约、功能直接”。后来我们发现越是这样做,设计出的产品就越趋于一致。更有趣的是,品类多了之后很容易就能形成语言,在不同产品里面体现。慢慢地,就形成了小米特有的语言。

**柳冠中:** 设计师从设计公司走到在小米当家作主了,可以通过探索找到大家都比较认同的一条路。它的前提是小米本身的机制允许,这种机制的形成是很重要的。

**刘德:** 小米这种机制的形成,都是市场竞争驱动的。小米早期的主业是做手机,行业竞争非常激烈,所以我们不得不去寻找有竞争力的抓手,包括技术、供应链、资本的竞争等。而设计在竞争中是个重要的环节。小米在早期对设计要求非常高,非常重视。小米的合伙人里面,我是做工业设计出身,早期的七个创始人里有两个都是设计出身。由于对设计的格外重视,设计决策就会直接上升到公司的终极决策层面上。然后,我们会选择最优秀的设计师加入项目团队。有两类人我们是非常重视的:第一类是有足够训练密度的人,他们对设计有经验,就“差一层窗户纸”;第二类是我们认为在设计领域有天赋的年轻人。这两类人各有优势,有丰富经验的人能力全面,从画草图到和小工厂沟通样样精通,能把设计一步一步推下去;年轻人聪明,一旦给他一个对的路径,成长速度会非常快。所以这是组队组得好。

另外,给设计师话语权。小米的生态链的模式,让设计师从产品定义到产品设计再到成本控制,在整个过程里话语权很高。有时设计师的个人追求会给企业带来巨大成本,但这是一个形成尊重设计氛围的必要代价。这些代价属于投入,一旦磨合好之后,设计师慢慢也会成熟起来,开始形成成本意识,和项目经理、产品经理更好地沟通。这大概就是小米体系里的逻辑。所以总结下来,一方面是市场竞争的激励,另一方面是团队和团队的意识要足够好。

**柳冠中:** 小米生态链最强的机制在哪里?

**刘德:** 第一,小米生态链立足于小米这个平台,有巨大的平台支持;第二,所有的生态链公司小米不控股。从分配机制上做到了创业者做大的公司属于自己,而不属于小米。所以从制度上来说,第一是分享,第二是公司不控股。第三,这是一个“商邦”或者“社区”,大家在这里能够相互帮助,找到组织,会形成天然信任感。这样的生态链公司构成了小米的生态体系。我认为在这个过程中要分享、成全别人、互为放大器。今天小米是这些公司的放大器,当未来有几百家这样的公司,每一家都有几十亿上百亿的流水,他们就是小米的巨大的放大器。

**柳冠中:** 目前国内大部分设计公司都是中小设计公司,往往是跟着甲方转,我把它形容叫打游击,打一枪换个地方,想发挥都发挥不了。一个是需要甲方,二是在这么短的时间之内,想升都升不进去。而由工信部主办的大奖,获奖的基本上都是大企业,因为它有实

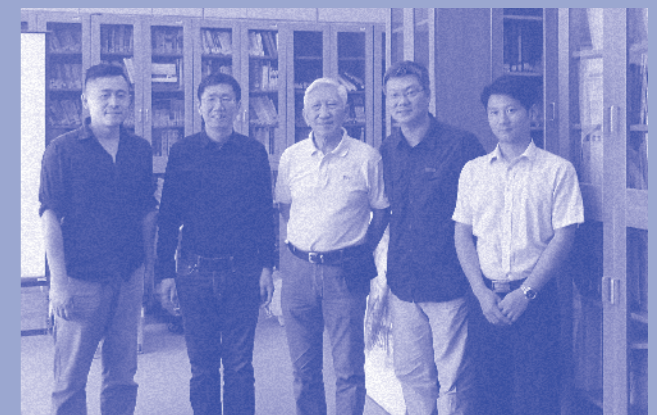
力。设计公司没有实力和资源,即便想做,周期也决定了它不可能花大力气去做。所以我非常欣赏小米这个机制。它是企业,但又是一个设计驱动的企业,跟一般的以市场拉动企业不一样。由设计驱动同样是一种企业的运作方法。我认为,这是中国今后10年到20年里,企业转型或者设计公司转型必须要参照的一种模式。怎么从机制上让设计的作用发挥到极致,这一点很关键。

**刘德:** 近20多年以来,中国的设计产业在很多方面都给了设计师们动力。首先是早期的探索者和启蒙者,以柳老师为代表,这些人把理念从海外带进来,告诉大家什么是工业设计。其次是全球制造产业向中国的转移,带来了西方的技术意识,今年中国的工业设计后劲很强,因为产业在这里。第三是大量中国学生开始出去读书,把外面的信息带进来,他们跟早期的启蒙者不一样,已经进入了实用阶段。还有就是中国市场强大消费的兴起,大家对“好东西”开始有需求。我觉得这个是整个中国设计产业的强劲动力。

今天在中国做设计师,在我看来已经非常美好。可贵的是,一旦这个动力形成,从今天往后的10年、20年,会迎来更黄金的时代。随着消费的崛起,消费者的成熟,大家开始对好产品有诉求,以及有更多的从业者、毕业生会出现,中国制造开始精致了。我觉得制造业起来可能真的会迎来一个天时地利人和的20年,政府给了今天的设计师一个非常好的时代。

**柳冠中:** 我们国家经过40年的努力,的确有了长足的进步。第一,具备了搞设计的平台以及有足够训练度的设计师;第二,出现了一些设计驱动意识比较强的董事长,或者对设计比较有认知的人,比如小米;第三,一些和企业有紧密合作模式的设计公司正在成长,他们会和企业签订长期的比如3到5年的战略合作,这个模式在最近已经开始出现明显的苗头,而在过去是不可能的。另外,设计公司应该固定与几个企业进行合作,不能总是打游击。

对于这样与企业合作的设计公司,我认为政府应该给予相应鼓励。一是得奖鼓励,二是在公司进入设计园区的三年中,减税免税或者降低房租,鼓励一部分设计公司与企业建立一种战略伙伴关系,我们叫捆绑式的合作。这样会带动企业对设计的认识,同时,在过程中让设计师全程参与,对设计师来说也是锻炼,设计师的知识结构与专业服务都会升级。在将来,针对这一方面应该增加舆论导向,政府给予支持,不是简单的资金支持,而是提出政策,去鼓励中小设计公司与企业进行捆绑式的合作。



刘德：现在中国可能也进入到了一个INHOUSE的时代，为什么这么说？因为今天的产品竞争是个综合的竞争，它让技术工艺和加工制造成本结合得史无前例的紧密。这时一个完全“外围”的设计公司因为不能掌握到这么多信息，就“进不来”了。我觉得这也是各个企业到了综合竞争阶段的时候，INHOUSE开始兴起。在未来十年，这种INHOUSE可能还有巨大机会，因为这是整个中国社会实现“从无到有、从有到优”的过程。从解决问题到越来越精良，再往后可能会出现多样性。

柳冠中：是的，我们现在讲的小公司和未来讲的小公司完全不是同一个维度的，当整个社会的支撑和其他服务都跟上了以后，它才有存在的空间。面临这个阶段，INHOUSE的设计公司应该要发展了。现在很多企业要找设计合作者更愿意找专业的，而不是找一个什么都会做的，这就说明INHOUSE设计公司的发展趋势在成熟，因为它内部的管理配合太紧密了，这是一个非常明显的规律。

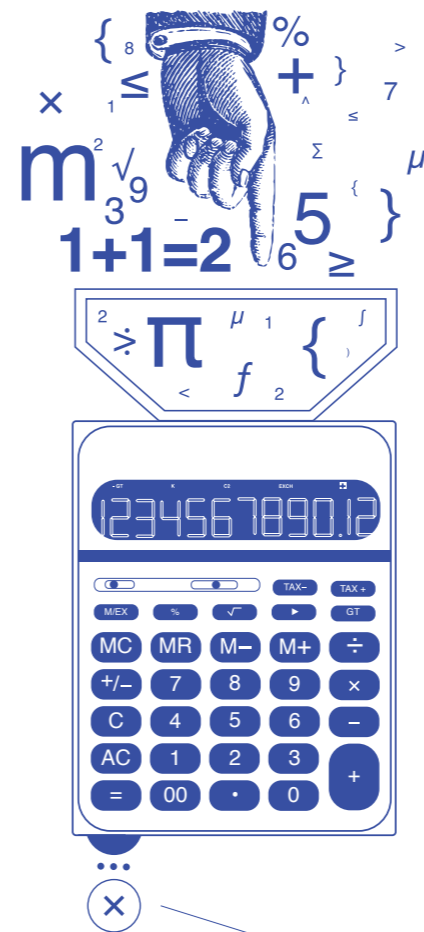
刘德：而且未来十年，一个雅致生活的时代会慢慢兴起。大约三四年前我有朋友来，随身带着一把很精致的扇子，他说这扇子是定制的，他买了好几把。这件事情让我很感慨。从设计师角度讲，倒推20年，做好一把扇子未必能养活得了自己。但今天你能做一把精致的扇子或者一个精致的杯子，就可以活得很好。为什么？因为一个新时代来了。

这样的时代会带来巨大的市场空间。除了大企业里做大批量生产的设计师以外，还会给那些做多样性产品的设计师提出要求，在设计领域内会产生巨大的机会，也会带来巨大的进步。我认为这是很好的事情。设计师最好的状态，可能还是更愿意做雅致的小产品，能够实现小而美的公司才是理想的。中国还会经历一个大企业时代。但再往前走，可能会像日本那样出现很多小型公司，会满足商品和社会生活的多样性，这是整个社会成熟的标志。

柳冠中：就像你说的，在下一个阶段，可能又会出现小设计公司，做一些精密的产品，而高一层就意味着这不是一个一般的小设计公司，而是在某一点做了很深的研究的前提下去做，这就给INHOUSE公司带来了很必要的支撑。因为它长期在INHOUSE里，本身运作得很熟练，再进来新的东西就不大容易了。

刚才提到的“精致生活”，我认为需要弄清它的含义，否则容易被商业引导成一种挥霍、浪费、奢华的“精致”。作为设计师和设计驱动型企业，恐怕需要在这方面竖起一个非常鲜明的观点和旗帜，我们鼓励的不是奢华，不是占有，而是服务，最终的产品只是一个载体而已。在今后国家应该有这样的设计机制产生，企业需要担负起社会责任，尤其是设计公司，小米有这个可能性。但是，今后要更明确的事情是，旗帜出现，要引导人们健康消费，不是简单的占有，而是一种简约型的生活。

中国的设计已经到了一个十字路口。在这40年中，虽然我们一直以模仿为主，但已经积累了足够的东西了，下一步怎么走非常重要。企业如何引导，设计公司如何引导，需要更多的交流，所以舆论引导非常重要。而这都需要设计师发挥作用。随着现代生活方式的变化，设计需要描绘新的东西。同时，对于社会的规范、道德的进步和伦理的延续，设计师也要起到维护作用，因为设计的确是在引导消费，在产品或者服务系统当中，除了满足以外还应该有一定的限制。从客观上来讲，设计师是在引导人，在参与社会规则的制定。■



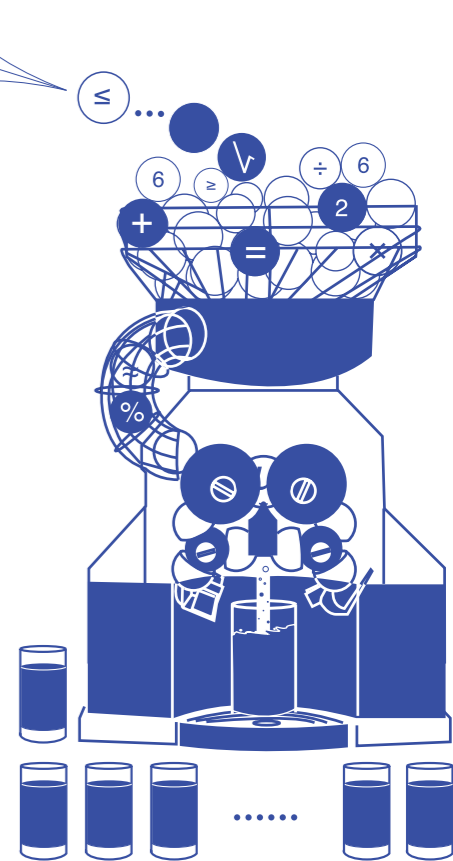
Since 2017, Fan Ling, Founder of Tezign.com and Director of Tongji Design AI Lab, has drafted an annual Design and AI Report, collating current developments in the field and its applications and case studies in the design industry, in order to benefit those interested in the emerging field. According to Fan Ling, the report is not really about AI design, or designing a certain kind of AI, but rather a discussion of how these two key thinking approaches connect, specifically, deep dialogue and synergy between design intelligence and machine intelligence.

The Design and AI Report 2019 summarizes the contents of the past two years of reports and is published in book form, as “From Universality of Computation to Universality of Imagination: A Catalog on Design & Artificial Intelligence”. The use of the word “Catalog” in the book title suggests an intention on the part of the author to employ the spirit of the Whole Earth Catalog, i.e. “Stay Hungry, Stay Foolish”. As he says, this book is full of curiosities — for example, how machine intelligence can release human

creativity to capture the possibilities of collating generalized design (concept, practice, application, tools, approaches) and generalized AI (concept, criticism, technology, policy, moral principle). It is also full of collective intelligence (CI), which draws together the explorations of “fellow travelers” (design and AI networks) in different fields, dimensions and territories.

In the process of IT advancement, we may refer to one concept — Moore’s Law — which states that processor speeds, or overall processing power for computers, will double every 18-24 months. When the data and intelligence-based fourth Industrial Revolution arrives for real, we cannot help wondering if imagination can be quantified, whether it complies with Moore’s Law, and whether the universality of computation results in the universality of imagination.

Illustration by  
LAVA BEIJING





At the 2050 Conference (@2050) conducted in Yunqi, Hangzhou on April 28, 2019, Tezign.com organized a debate. The claim, represented by Xu Tian (Vice President and Chair Professor of Westlake University) and Xu Yingqing (Director of the Future Lab, Tsinghua University and Director of the Department of Art and Design, Academy of Arts & Design, Tsinghua University), stated that imagination exists so that humans can dominate the earth, and that it develops with human evolution. Although it may not be quantified today, it may well be computed in the future. Moore's law underpins the development of information and technology. With technological advancement, human knowledge and capabilities, tactics and equipment supporting our use of such knowledge will keep being strengthened and enhanced, which means our knowledge of the world, and our future expectations and forecasts, and the imagination of this will also comply with Moore's law. With the passing of time, human imagination will undoubtedly increased, continuously and in multiple ways.

The counterclaim, represented by Sun Lingyun, Deputy Director of the International Design Institute, Zhejiang University and Director of Alibaba IDEA Lab, states that it is overestimated to explain a significant ability developed in the long evolutionary progress influencing the human civilization just by adopting the methodology of quantification and scientific computing developed in just decades. Gao Shiming, Vice President of China Academy of Art, also claims the limit of the imagination is limited to that of the world, and the evolution of the imagination depends upon exploration and discovery in other ways than in computation.

Regardless on which side you stand, issues of the relationship between computation and the imagination arise. Fan Ling and his company Tezign.com are interested in how the universality of computation and the universality of the imagination interact. Tezign has developed a DesignNet database, which charts design's creative elements and corresponding attributes, and serves as a dataset on which the industry can face data computation, and help machines understand design. In the book From Universality of Computation to Universality of Imagination: A Catalog of Design & Artificial Intelligence,



Fan Ling demonstrates the value and application of design AI to commerce, showcasing design connections with commercial experience as the end products with data stored in the "cloud", and cases of design connections with the digital economy, turned into data resources, and generating machine intelligence. The DesignNet database continuously explores data value, finding ways to make data circulate, and be better recalled.

In Fan Ling's most recent report, he stresses the relationship between brain and machine: they are not opposite, but in synergy. There is one viewpoint — the term "substitute" shall be avoided in the discussion of design and AI, because it stands for a threat to human creative work. Instead, the phrase "Brain Machine Ratio" is better. The Brain Machine Ratio 3.0 attempts to describe the degree of confidence between human and machine in the design creativity field, and to establish the human oriented machine learning in the design of the AI applications.



By understanding the relationship between human and machine in different scenarios we can see a transformation in the discussion from "machine substituting human" to "machine assisted human" to "the co-evolution of human and machine".

The research behind this report was conducted by Tezign x Tongji Design A.I. Lab. The Lab, jointly established by the College of Design and Innovation, Tongji University and Tezign Information & Technology, is dedicated to the application and research of interdisciplinary data, algorithms, networks, AI and design, fosters a new generation of design and creative talents in academia, and cooperates with mature and newly established science and technology firms, realizing the transformation of IAR and innovation. ■



Illustration by LAVA BEIJING

For the full text of this Report (in Chinese, English and Japanese), please visit <http://sheji.ai:10080/2019设计人工智能报告/> 完整报告可见于(中、英、日文三个版本): <http://sheji.ai:10080/2019设计人工智能报告/>

从2017年开始至今,范凌(同济大学设计人工智能实验室主任、博士生导师,特赞Tezign.com信息科技有限公司创始人)每年都会撰写一本设计人工智能报告,收集人工智能领域的发展现状及在设计行业中的应用和案例,为关心并对这个领域感兴趣的人提供更多参考。在范凌看来,“设计人工智能”不是关于人工智能做设计,也并非关于设计某种人工智能,而是对两种关键思维之间关系的探讨,是设计智能与机器智能之间的深度对话与协同。

2019年的设计人工智能报告,又汇总了前两年报告的内容,以书的形式出现:《从无限运算力到无限想象力:设计人工智能概览》。从书名里的“概览”二字就可看出,范凌有意延续《全球概览》(Whole Earth Catalog)的精神:“Stay hungry, stay foolish”。照他所说,这本书充满了“好奇”——比如机器智能将如何释放人的创造力,捕捉广义设计(观念、实践、应用、工具、方法等)和广义人工智能(观念、批判、技术、政策、伦理等)之间的集合的可能性,也充满了“集体智慧”,是把同路人(设计人工智能网络)在不同领域、维度、地域的探索聚集到了一处。

在信息技术进步的过程中,有一个概念是摩尔定律,其本意指集成电路上可容纳的元器件的数量每隔18至24个月就会增加一倍,性能也将提升一倍。那么,在基于数据和智能的第四次工业革命到来之际,当我们讨论运算力和想象力关系的时候,我们不禁思考,想象力是否可以被量化?想象力是否也符合摩尔定律?无限的运算力是否也能带来无限的想象力?

在2019年4月28日在杭州云栖小镇举办的“2050大会”上,特赞(Tezign.com)组织了一场正反方的大辩论。正方如许田(西湖大学副校长、讲席教授)和徐迎庆(清华大学未来实验室主任、清华大学美术学院信息艺术设计系主任),称想象力是人类之所以成为地球主宰的原因,并且在随着人类的演变而发展,尽管在今天也许无法被量化,但不代表以后也没法计算。摩尔定律是信息技术的发展规律,人类由于技术的发展,使得人类的知识以及支持我们运用这些知识的能力、手段和设备也随着摩尔定律不断增强增大,所以我们对世界的认知,对未来的期望和预测,这种想象也符合摩尔定律。随着时间的变化,人类的想象力一定会不断而且是成倍地增加。

反方如浙江大学国际设计研究院副院长、阿里IDEA Lab负责人孙凌云,称用区区几十年时间里发展出来的

量化和科学计算的方法论去解释影响了人类文明漫长进化过程中发展出的一个重要能力,实在是不自量力。中国美术学院副院长高士明也说,想象力的限度就是世界的限度;想象力的演进不是靠运算,而是靠探索和发现。

无论赞同或反对,运算力和想象力的关系问题就此开始被讨论。在范凌以及他创立的特赞看来,人类赋予了机器无限的运算力,同时机器也回馈了人类无限的想象力。特赞一直在建立DesignNet数据库,这是一个设计创意元素和对应属性的数据库,也是作为设计行业面向整个数据运算的基础的一个数据集,帮助机器去理解设计。在这本《设计人工智能概览》里,范凌展示了设计智能在商业领域内的价值和作用,展示了设计连接起商业中作为产品的“端”的体验和作为平台的“云”的数据,设计接入数字经济、设计变为数据资源,以及设计产生机器智能的案例。他们一直在不断探索数据的价值,寻找让数据流通起来的方法并让其被更好地调用。

范凌在最新的报告里也一再强调脑和机器的关系:它们不是对立的,而是协同的。有一种观点认为,在设计人工智能的讨论中应避免使用“替代”一词,因为它代表一种对于人类创造性工作的威胁;更合适的描述方式是“脑机比”(Brain Machine Ratio),即人脑与机器的比例。脑机比3.0试图在设计创意领域描述人与机器信任的程度,在设计人工智能应用中建立以人为中心的机器学习。通过在不同场景中去了解人和机器的关系,希望在有关人工智能的论述中可以看到从机器取代人类转变到机器协助人类,再到人机共同进步。

此报告的研究机构是同济大学特赞设计人工智能实验室(Design A.I.Lab),它由同济大学设计创意学院和特赞信息科技有限公司联合发起成立,致力于数据、算法、网络和人工智能与设计学的交叉学科应用研究,通过博士生和硕士生的教学,培养新一代设计创意人才,并与成熟和初创的科技企业合作,实现产、学、研、创的转化。 ■



Illustration by LAVA BEIJING



# BOE: A Spectacular Shift Towards IoT — The Double- sided Win



In 2016, Wang Dongsheng, Chairman of BOE Technology Group (BOE), released the company's new IoT strategy. Dubbed the “the double-sided win” strategy, BOE aims to concentrate on both the application end and the technical end, providing partners with technical and design support using BOE's display and sensing expertise. BOE plans to develop new application scenarios in the segment and satisfy user needs, while also expanding the market. The company has ambitions to become an IoT specialist by aggregating its own core technology and laying down a stake in the budding field of technological reform.

Since 2014, BOE has followed a design-led strategy and developed a number of significant hardware products, including BOE Alta TV, BOE MAX 110” LCD, BOE 98” 8K displays. Shifting focus, in 2016, the group released its IoT strategy focusing on design and development of IoT products, leading to an about turn from design and development of single smart hardware products to that of combined software-hardware products. These should not be restricted to just one hardware or software, but should be a systemic meld of both. Modes of use are also under review, changing from a traditional contact-based human to machine interaction to a comprehensive IoT-based interaction.

Images: BOE



Taking IoT for the arts for example, in May 2016, BOE established a Digital Arts Division to demonstrate its presence in the field. By November 2016, this division launched the first digital gallery in the world — the BOE iGallery. Integrating arts display, appreciation and deals, it has the capacity to display digital paintings, images, cultural relics and nonmaterial cultural relics. In this field, BOE aims at building a set of eco-products: the BOE iGallery consists of a smart hardware terminal, a smart cloud platform, a sharing base and value added services, all on the foundations of BOE's powerful display technology, IoT technology, AI technology and big data capacity. While designing and developing hardware, BOE has also developed applications, built its art gallery, and created a digital arts service model. The design of products has turned it into a combined virtual and real combined system. The iGallery concept was realized when consumers' demands levelled up and the industry developed to a certain stage. BOE may well shift to 2C IoT by way of its new carrier, the BOE iGallery.

The BOE iGallery, once launched, was honored at the 2017 USA CES Global Display Technology Innovation Application Award in January 2017, and the 2017 IFA Product Technical Innovation Award — Display Technology Innovation Gold Award at IFA, Germany. Praised at these global top electronics consumption shows that BOE has indeed made great progress in shifting from single product design and production to system design and production, under the umbrella direction of “Made in China” to “Created in China”.

At the 2018 Innovative Results Exhibition, BOE showcased innovative technology, applications and products in DSH segments including flexible AMOLED displays, HD LCD solutions, sensors and solutions, BOE iGallery, IoT solutions, mobile health management, and smart healthcare provision. With its untiring pursue of technical R&D, BOE keeps up a steady pace of new product launches. With its powerful strengths in display, BOE will carry on creating product solutions for a better and healthier lifestyle. ■



A still image from <https://www.youtube.com/watch?v=9AEVn0S0DuA>  
Uploaded by: CGTN

## 京东方： “开放两端 芯屏气/器和”

2016年11月，BOE（京东方）董事长王东升公布了“开放两端 芯屏气/器和”的物联网转型战略。“开放两端”即开放应用端和技术端，借助BOE强大的显示和传感技术，为合作伙伴提供技术支持和设计支持，一起进行细分市场的应用场景创新，满足用户的需求，同时共同开拓市场，实现合作共赢的模式。

从2014年开始，京东方采取了设计引领的策略，开发出了很多经典的智能硬件产品，如BOE Alta新概念电视、BOE MAX 110寸超大屏产品、BOE 98 8k显示产品等。然而从2016年开始，集团发布了物联网端口战略，产品创新方向聚焦在物联网产品的设计与开发，设计团队也从最初单一的智能硬件产品设计与开发，转化到软硬结合产品的设计与开发。产品的形态不再局限于一个硬件或软件，而是软硬结合的系统产品；使用方式也不单单是传统接触式的物理形态的人机交互方式，而是物联网形态的交互方式。

以艺术类物联网产品来说，2016年5月份，京东方成立了数字艺术事业部，进入数字艺术领域做相关产品的设计与开发。到2016年11月，该部门就成功发布了全球首款数字艺术馆——BOE画屏系统。这个系统集艺术展示、欣赏和交易于一体，展示数字化的绘画、影像、文物、非物质文化遗产等艺术品。京东方在这里的目标是要搭建一套生态产品：BOE画屏是由智能硬件终端+智能云平台+共享内容库+增值服务组成的，是基于BOE强大的显示技术、融合了IoT技术、AI技术和大数据技术开发而成的系统产品。京东方在设计开发硬件的同时设计开发了APP，搭建艺术内容库，进行数字艺术服务模式创新，产品设计也由此演变成设计一套虚拟和现实结合的系统。画屏产品概念的出现是消费者需求升级和产业达到一定发展阶段的产物。京东方要向2C方向的物联网产业转型，BOE画屏是一个很好的载体。

BOE画屏产品一上市就在2017年1月份的美国CES展上获得了“2017年度全球显示产品创新应用奖”。同年9月，又在德国IFA展上再次斩获“2017年度产品技术创新金奖”。BOE画屏连续在全球顶级的电子消费展上获奖，说明京东方的设计创新在从设计制造单个产品到设计系统产品的转变中取得了巨大进步，这也是从中国制造到中国创造的经典创新案例。

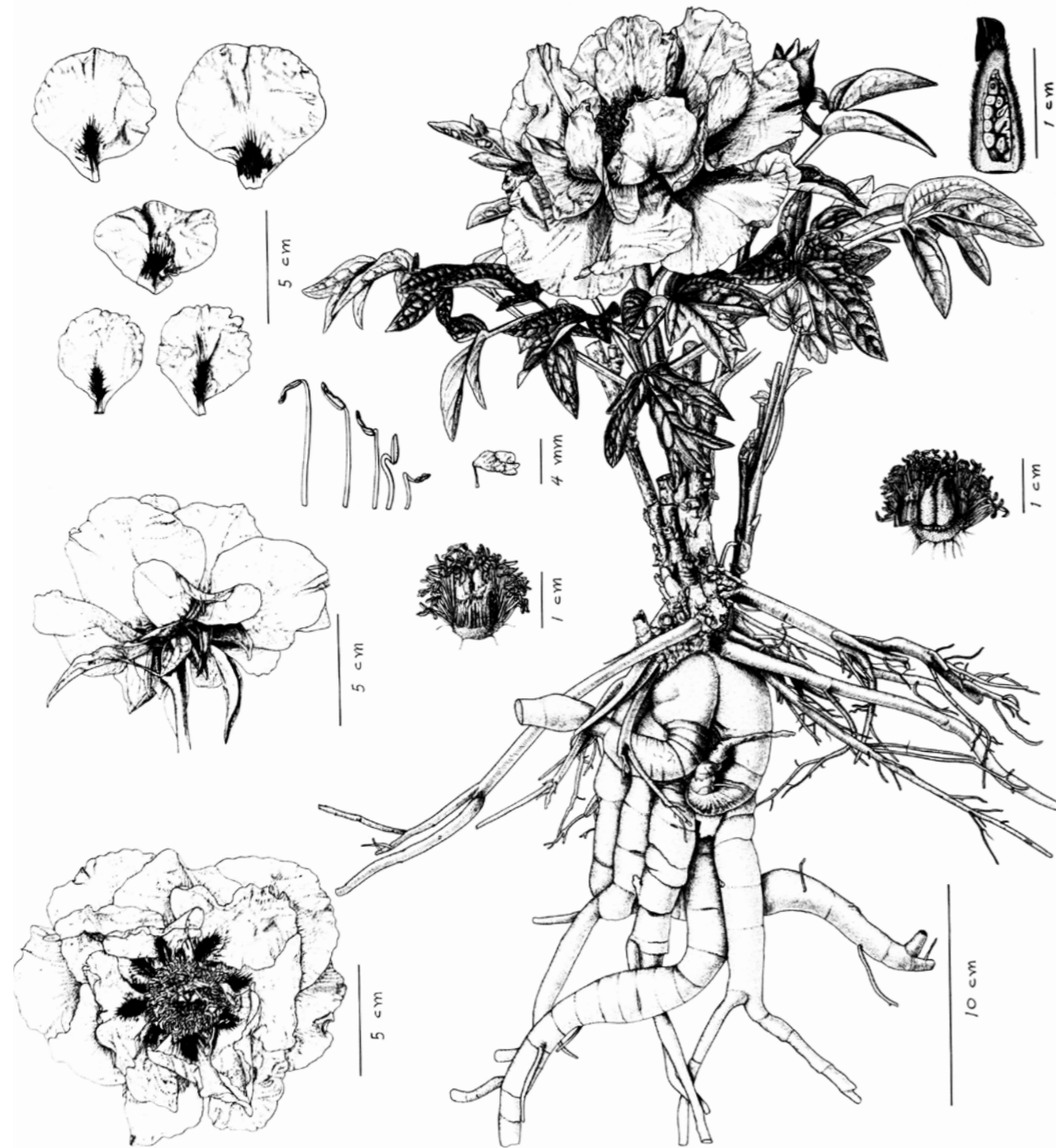
在2018年度创新成果展上，京东方又展出了系列柔性AMOLED显示产品、超高清显示系统解决方案、传感器及解决方案、BOE画屏、物联网解决方案、移动健康管理、智慧健康服务等DSH三大事业板块的创新技术、应用和产品。凭借着对技术研发的不懈追求，京东方持续将一件件创新产品推向市场。借助在显示方面的强大实力，京东方将持续为人们生活得更美好、更健康创新出更多的产品解决方案。■

本文摘编自《设计》杂志2019年3月对BOE（京东方）智慧系统事业群设计总监、前数字艺术事业部总经理吕继刚的采访。



# Yinxin: An Open Source Deep Ecological Community

## 印心: 开源的深度生态社区



紫斑牡丹 *Peonia rockii* (S.G.Haw & Lauener) T.Hong & J.J.Li

孙英生绘图 2018.05.10

**“An ecological community targets the building of a sustainable, harmonious and symbiotic organism based on natural ecology, industrial ecology and social ecology”.**

Wu Daoyuan (Founder of Yinxin Ecological Community and Initiator of the International Ecological Community Alliance)

**“Natural ecology describes the relationship between humans and nature. Industrial ecology means that industries in a community are environmental friendly, able to form upstream and downstream economic chains, before finally realizing societal harmony. This is society in its widest sense: a society of all things, including various relations between humans and living things, air, water, and so on”.**

**“Based on integrated design thinking, and taking philosophy, anthropology and sociology into account, an ecological community can mean a happy life for its inhabitants. It also promotes the local economy. In the absence of local involvement and local industrial involvement, it is hard to truly drive local development and make a happy life come true”.**

**“After the trials of Yinxin Hut in Lijiang and the Rooftop Farm in Chengdu, we are planning and building an Yinxin Ecological Community in Chenzhou, Hunan. We plan to build an ecological community with government support and by ensuring sustainable land utilization. This is a model community, on the success of which we can expand”.**

Wu Daoyuan's Yinxin Ecological Community Chenzhou is located on 500 mu (more than 82 acres) of land in the Beihu district of Chenzhou, in Hunan province. In 2018, Yinxin provided the overall ecological design planning for the area, including a natural education center, a forestry kindergarten, a museum of art, a

flower-themed restaurant, a Zen meditation center, a folksong square, Permaculture gardens, food forests, and ecological homestay clusters are all included in the proposed public space, and the planned private residences have ecological underpinnings. In addition, the self-circulation water treatment system and irrigation system, and the rubbish disposal system (biological compost, fermentation) are designed to fully realize self-sufficiency and a sustainable community support system.

Due to different land resource attributes, the prevailing international “ecological village” or “another communities” are not best suited to copying. In consideration of the worries of the community residents about land attributes and the cycle of input into the land, it is hard to realize consensus and co-construction within a short period of time. For the building of deep ecological communities in China, you must start with government cooperation and build a model project with the overall ecological design thinking in keeping with the local real estate trajectory, and operate it over the long term by mobilizing the involvement of local residents. The practices of Yinxin Ecological Community Chenzhou can be benchmarked. The resources in each link are effectively used by adopting the overall design, with individual links as an open system, including natural environment, planning and architectural design, village reform and redevelopment, construction of auxiliary facilities, and building of public space, in order to encourage local residents and the public to participate and gradually form a naturally amalgamated ecological community.

After working on the project for several years, Wu Daoyuan and some like-minded peers selected a generic industry that could be developed in an ecological community. This is “education”. An ecological community needs human and nature to work harmoniously. To love the earth, first of all, we need to know it, so education and communication are essential.

Natural education is rightly life education.

**“We cooperated with Sun Yingbao from the Chinese Academy of Sciences to establish Yinxin Natural Science Education Center. Education starts with and covers children. Communities are linked by education. Children bring people together. Education is the first consensus of the community; an agent of integration. In addition, education can also drive people to participate in the development of an ecological community”.**

**“An ecological community built in a rural area helps develop natural science education. With sound educational resources in rural areas, local residents, especially women and youth returning to start their careers, provide natural education to adults and children from urban areas. This can increase incomes, establish confidence, and enhance contact between rural and urban areas, as well as give confidence in the local culture”.**

Yinxin Natural Science Education Center is an innovative educational enterprise for children from 3 to 15 years old. It is derived from the “Science Popularization Hall” established by Sun Yingbao at the Institute of Botany, Chinese Academy of Sciences in 2014. It is dedicated to transforming scientific results into popular and educational content, and training children to know, care for and protect nature via systematic courses and products, ongoing natural science courses, teaching materials and plans, science popularization readings and teaching articles (like flip-charts, games cards, promotion products), and by providing tailor-made ecological environmental design and construction of the ecological environment, thus influencing three or four generations to care for the ecological environment and the harmony and symbiosis of humans and nature.

Yinxin Ecological Community Chenzhou, honored in the 2018 IAI



International Cultural Travel Awards, has been recognized as a core direction for ecological travel with Chinese characteristics, and is the first real estate project to reflect overall deep ecological community design in Hunan and even in China as a whole. The ecological community is still in its exploratory phase in China. In March 2019, Yinxin initiated an International Ecological Community Alliance, aiming to aggregate experts, scholars and practitioners in different segments of the ecological field to jointly drive the development of ecological communities. ■

“生态社区是在自然生态、产业生态、社会生态等多维度构建可持续、和谐共生的有机体。”

——吴道源（印心生态社区创始人、国际生态社区联盟发起人）

“自然生态就是人与自然共生的关系，产业生态是指这个社区里的产业是环境友好型的，并能形成上下游的经济链条，最后达到社会生态的和谐。这个社会是广义的，是万物之间的社会，包括了人与生物、空气、水等等之间的关系。”



“用的是整合的设计思维，用哲学、人类学、社会学来考虑，生态社区最后落脚点是生活幸福（老百姓过日子），从另一个角度来说，也是促进了社区所在地的经济发展。没有在地人的参与，没有与当地的产业结合，那就没有办法真正带动当地的经济，无法实现老百姓的幸福生活。”

“经过丽江的印心石屋生态小院、成都的屋顶农场尝试，最近在湖南郴州规划建设郴州印心生态社区。也是想通过得到政府支持的方式，确保土地使用的持续性，进行一个生态社区的规划建设，计划做成生态社区的样板，成为示范。”

吴道源所说的郴州印心生态社区，位于中国湖南省郴州市北湖区的一处总规划500亩面积的土地上。2018年，印心为此地提供了生态整合设计规划，其中包括一个自然教育中心、一个森林幼儿园、一个艺术馆、一个鲜花餐厅、一个禅养中心、一个民谣广场、朴门菜园、食物森林、生态民宿群落等，构建起社区居民生态生活的必备公共空间和私密居所。此外还设计了社区自循环水处理系统和灌溉系统、生物堆肥和酵素等垃圾处理系统，充分实现自给自足的社区可持续支撑体系。

由于土地资源属性不同，目前国际上的“生态村”或“共识社区”模式并不适合照搬到中国。社区居民出于对土地属性的担忧和对自身投入的时间周期考量，很难在较短时间内实现社区的“共识与共建”，所以，在中国深度生态社区需要与政府合作共建入手，以生态整合设计的思维、结合当地文化构建，打

造出样板项目，然后依靠发动社区在地居民长期参与的社会企业模式来长期有效运营。郴州印心生态社区的做法是个典范。它在以整合设计将各个环节的资源有效利用的同时，每个环节之间又是开放的系统，即从自然环境、规划和建筑设计、村落改造复兴、附属设施建设、公共空间营造等不同环节入手，鼓励在地村民和公众参与，逐步形成一个自然共融的生态社区。

经过多年思考，吴道源与志同道合的人们找到了一个可以在生态社区发展的共性产业，那就是“自然教育”。生态社区也是需要人与自然和谐生活，我们要爱自然，首先就是要了解自然，那么教育和沟通就非常重要了。自然教育就是生命教育。

“我们与中国科学院的孙英宝老师合作，成立印心自然科学教育中心。教育的对象是从孩子开始的。任何一个社区由教育联系起来，有了孩子就把大家聚合在一起了。教育是社区的第一共识，是融合剂。教育也能推动更多的人来参与生态社区的发展。”

“在乡村建生态社区，开展自然科学教育是有利的。乡村有很好的自然教育资源，让当地人，比如妇女、回家乡创业的青年，给城市里来的孩子和大人进行自然教育，第一可以增加他们的收入；第二可以建立城市和乡村之间稳定的、高频次的联系，进而带动其他产业的发展；第三可以树立起他们对自己当地文化的自信，认识到自己身边的绿水青山和生态农业产品就是最好的自然教育资源，不仅可以通过教育转化收入还可以通过教育传播、销售当地的生态产品，促进人们自发的保护环境和自然。”

印心自然教育科学中心是一家面向3至15岁儿童的创新教育社会企业，它缘起于中国科学院植物研究所的孙英宝老师于2014年创立的“科普大讲堂”，致力于将科学成果转化为科普教育内容，通过研发体系化的课程和内容，提供持续的自然教育课程、教材教案、科普读物和教学产品（如挂图、互动游戏卡牌、宣导产品），以及定制化的生态环境规划设计和生态环境构建服务，培养孩子们去认识、爱护和保护自然，进而去影响家庭3至4代人对生态环境的关爱，以促进人与自然的和谐共生。

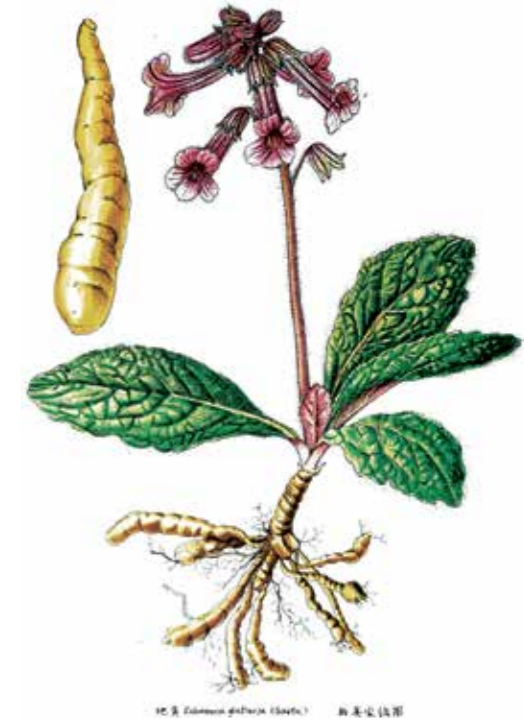
郴州印心生态社区项目整合设计方案荣获2018年度“IAI国际文旅”奖，被认为是未来中国特色的生态文旅项目需要的核心内容方向，成为湖南省乃至中国第一个完整呈现深度生态社区整合设计的文旅项目。但生态社区建设在中国目前仍然处于探索期，2019年3月，由印心发起成立国际生态社区联盟，旨在聚合生态领域不同维度的专家、学者和实践者，共同推动生态社区发展。■



向日葵 *Helianthus annuus* L. 孙英宝绘



Illustrations courtesy of Sun Yingbao  
文中植物画由孙英宝绘制提供



地黄 *Echinacea purpurea* (L.) Gaertn. 孙英宝绘



紫萼 *Panicum polystachyon* (L.) Steud. 孙英宝绘

The quotes in this document are taken from a conversation between **Wu Daoyuan** and **Sarah Orlando** on July 24, 2019. 文中引言均出自2019年7月24日吴道源与萨拉·奥兰多对谈时所言。



# Xu Ao Di: Government, Capital and Literati

## 徐岙底:政府、资本与文人

by Yang Biqiong  
杨碧琼

Group photo of Xu Ao Di villagers. Photo by Li Yuxiang  
徐岙底村民大合影 摄影:李玉祥



The renovation of the Hongqu Exhibition Hall was completed at time for the local traditional festival (Rang Shen festival) on July 8, 2019. It had been carried out by the Ancient Architecture Institute of Zhejiang Province and multi-phase Architectural Design, with local craftspeople. The first exhibition, Dark Cloth from the Red Ground (Hongdi Qi Wuyi) about the famous local dyeing technique wuyi hongqu was unveiled at the same time. This was all in aid of the development of tourism in Taishun.

2019年7月8日(农历六月初六),正值当地传统节日禳神节之际,由浙江省古建筑研究院和多相建筑设计改造、当地工匠修建的红袖展馆竣工,首展“红地起乌衣”乌衣红袖主题展览同时揭幕,进一步助力泰顺县旅游主业化进程。

Xu Ao Di is located in Xiao village in Taishun, Zhejiang. Nearly 800 years ago in the Song dynasty, descendants of Wu Qigong moved here from Ku village in Taishun. This took place in 1236, the third year of Emperor Duanping's reign. Culture has deep roots here, and there are three intangible cultural heritage forms in the village including the dyeing process wuyi hongqu, the marionette, and the Rang Shen festival. The village may be small but it is complete, ancient and natural, featuring pebbled alleys with their twists and turns, well-proportioned residential houses, wooden framed buildings from the Qing Dynasty and local rammed earth structures. The Hongqu Exhibition Hall, renovated and

with front and back yards, lies close to the Dongxi river. The hall's wide and elegant profile gives an impression of simplicity and confidence.

The renovation of the Hongqu Exhibition Hall and its exhibitions are part of the Xu Ao Di "Characteristic Ecotourism Demonstration Village" project. In April 2018, the government of Taishun and chief operator Xu Li signed an agreement for 30 years. Total investment of RMB 135 million has been planned. The project y on natural traditional village reconstruction, incorporating village houses designated by Xu Li, local restaurants, education centers, supply and marketing cooperatives, museums and the development of old village sites. Xu Li

first turned to Xu Ao Di village, inviting Zuo Jing's studio to carry out cultural excavation including work on wuyi hongqu, image and video records of Xiao village nursery rhymes, the archiving of contractual documents since the Qing Dynasty, and site-specific recreation of the novels of Fangzhi.

In thinking about how to revive the fortunes of the village, Zuo Jing's team recognized that the local dyeing technique, wuyi hongqu, was produced by local rice, spring water, and land, and that this was the link between past, present and future. Wuyi hongqu was brought by the Wu family when they first moved to the village. It was already well-known around Zhejiang and Fujian because of its specific process. In the

process of producing wuyi hongqu, the rice changes color from white to red to grey in six days, finally turning black, like shadows at the ends of the earth. It is appropriately called "dark cloth from the red ground". During the late Qing dynasty and republican era, more than 100 stoves and most of the village families were busy producing it. Even now, the village workshops are still in use, and were included in the fourth provincial "Intangible Cultural Heritage" list of 2012. As the most representative piece of intangible heritage in Xu Ao Di, wuyi hongqu was a key point of local cultural value to unwrap for Zuo Jing.



In drawings, photographs, videos, graphics and objects, the exhibition came together naturally. The production process, fragments of cloth, data and foods related to the wuji hongqu were introduced. The exhibition also showed other achievements of Zuo Jing in excavating cultural content, showing production, retrofit and renovation, festival customs, local oral presentations, marionette shows, document archives, daily utensils and philosophy of the village and locality.

Zuo Jing hopes villagers will appreciate this exhibition. "We look forward to working with the people here to discover and create local public memories, to discover and establish value systems deeply hidden in the countryside". The exhibition is just the start. "It's not just a display of Intangible Cultural Heritage in a single narrow area, as it includes the team's renovation efforts, folklore records, file collections, nursery rhymes collection. We hope visitors walk out of the Exhibition Hall and see the village with fresh eyes, using their feet rather than a map to discover its paths, icons, homes, workshops, water systems and

fields, ways of working and living, and beyond the village, the network linking villages to towns, new settlements to village communities".

Walk out of the Exhibition Hall, behind the exhibition, and you will encounter different kinds of rural settlements — a natural village, an administrative village, a town even. This is in line with the concept of "Construction of Villages and Towns" that Zuo Jing worked on two years ago in Maogong, Guizhou province. It refers to villages and towns where non-county jurisdictions (county towns) are located, which constitute the end of a large number of traditional administrative structures in China. At the time of the initial intervention, "I was concerned about the relationship between this village and other villages, especially with the geography of the villages and towns. I tend to think that the starting point of my work may always be at village or town level".

The "Construction of Villages and Towns" ambition led Zuo Jing to consider the question of how to turn a tourist site into a comprehensive tourist destination. Xiao village, Taishun

county, under which Xu Ao Di is administratively positioned, is part of a major rural revitalization plan along the Yuxi river. The 12.6 square kilometer demonstration belt is about 9.3 kilometers long, and passes by five villages including Xu Ao Di. Its purpose is to make every effort to promote local economic growth by relying on the local environment and tourist resources. At present, all five villages along the demonstration belt have been created as Level A scenic villages, and Xu Ao Di has also been assessed as a provincial level 3A scenic village and most beautiful ancient village of 2018.

At the forum on the same day as the exhibition opening, Zuo Jing said they got involved because Xu Li had won the right to operate for 30 years. "So there was a guarantee of a pretty long period. I don't like to carry out short or urgent projects in the construction of villages and towns. These will only be projects. I like deep thinking for a long time. Only time can teach you how to work and how to serve the local people better.

"Xu Li in Xu Ao Di village has better prospects than previous similar projects. They hope to offer a rural community homestay experience highlighting the state of the local culture and ways to develop sustainably. As Xu Li claimed, the mission of Xu Ao Di village is to "make old villages live again", and this requires "living landscapes" (green and sustainable), "living cultures" (respect and empowerment) and "living industries" (sifting and secondary development), a process that is absolutely in need of deep cultivation. ■

Entrance to Xu Ao Di Village. Photo by San Jin  
徐岙底古村落入口 摄影:三金



Rang Shen Festival. Photo by Zhu Rui  
六月六禳神节 摄影:朱锐



Restoration of an old house in the village. Photo by San Jin  
徐岙底村古建筑修缮 摄影:三金



Marionette show. Photo by Zhu Rui  
提线木偶表演 摄影:朱锐



Hongqu exhibition. Photo by Zhu Rui  
“红地起乌衣:红袖主题展”展览现场 摄影:朱锐







Production process of Wuyi Hongqu. Photo by San Jin  
乌衣红糍二次过水阶段 摄影:三金

徐岙底的生产生活、建筑改造、节庆风俗、村民口述、木偶展示、契约文书整理、日常用具及其背后的风土哲学等。

左靖希望这次展览是办给村民们看的。“我们期望与这里的人们一道挖掘和创造本土的公共记忆，共同发现并建立深藏在乡村深处的新的价值体系。”在他看来，“红地起乌衣：红糍主题展”或许可以成为一个开始。“它不仅仅是单个狭小地域的‘非遗’展示，还包括了整个团队初步的建筑改造、民俗记录、文书档案整理、童谣收集等。我们更建议观者走出展馆，把审视或欣赏的目光放到整个村庄，用行走，而不是用地图，来了解它的道路、古迹、民居、工坊、水系和田地，人们的劳作和生活，还有，村庄之外，联结村与镇的公路、新的居民点和村镇社区。”

走出展馆，把“展览”的外延拓展到一定范围内的乡村场域——从一个自然村，到行政村，甚至到镇。这正符合了左靖两年前在贵州茅贡尝试实践的“乡镇建设”概念。这里的“乡镇”特指那些非县治（县城）所在地的乡、镇，它们构成了数量庞大的中国传统行政管理架构的末端。在最初介入时，“我关心这个村子跟其他村子的关系，特别是跟乡镇的地理关系。我

倾向于做一个整体的思考，我的工作起点可能一直会定在一个乡镇的范围内。”

左靖的“乡镇建设”的抱负，或许正顺应了徐岙底村所属的泰顺县筱村镇将全镇从“景点旅游”建设成“全域旅游”的雄心。作为推进乡村振兴计划的最新一步举措，2019年，泰顺县筱村镇沿玉溪规划了一条“匠心人文”乡村振兴示范带，示范带长约9.3公里，面积约12.6平方公里，途径包括徐岙底在内的五个村庄。其目的就是依托当地的生态环境和特色旅游资源，全力带动当地经济增长。目前，沿示范带的五个村子已全部创成了A级景区村庄，徐岙底村还获评省3A级景区村庄和2018年最美古村落。

在展览当天的论坛上，左靖曾明言，选择徐岙底，主要是因为墟里拿下了三十年的运营权。“这样就会有一个相当长时间的保障。我不喜欢做很短很急的乡建项目，那会只有项目，没有乡建。我喜欢长时间的深耕，只有时间才能教会你如何工作，如何更好地服务地方。”相比于之前的民宿项目，墟里在徐岙底展现出更多的可能性，他们希望将其打造成一个能深度体验当代乡土文化、可持续发展的乡村社区。墟里称在徐岙底的使命



Hongqu exhibition. Photo by San Jin  
“红地起乌衣：红糍主题展”展览现场 摄影:三金

是“让古老的村庄活起来”——这需要“活的山水”（绿色及可持续发展理念）、“活的文化”（尊重并赋能当地的文化及传统）与“活的产业”（产业梳理及二次开发），而这个过程，毫无疑问地，需要深耕。■

Exhibition poster. Photo by Zhu Rui  
乌衣红糍主题展览海报 摄影:朱锐



Hongqu exhibition. Photo by San Jin / 共同签约“泰顺‘墟里·徐岙底’特色生态旅游示范村”展览现场 摄影:三金



徐岙底村位于浙江省泰顺县筱村镇，自宋端平三年（1236年）泰顺本境库村吴氏先祖吴畦公后裔迁居此地起，已有近八百年历史。这里文化积淀深厚，拥有乌衣红糍、提线木偶、禳神节三项非物质文化遗产。村落形态小而完整，古朴自然，卵石巷道蜿蜒，民居错落有致，多为清代木构建筑或近代夯土建筑。甫竣工的红糍展馆就是由当地的一所民宅改造而成，它亲近东溪，有前院和后院，宽大优美的屋脊轮廓，散发着朴素自信的印象。

红糍展馆及展览是徐岙底村推进其乡村社区项目的又一个动作。2018年4月，泰顺县政府与乡村运营商墟里——共同签约“泰顺‘墟里·徐岙底’特色生态旅游示范村”项目，此整体村运营协议期限为三十年。项目预计总投资1.35亿元，依托徐岙底传统村落进行规划和运营，将分期建设墟里乡舍、乡土餐厅、自然教育基地、供销社、博物馆以及老村深度开发等项目。签约之后，墟里开始入驻徐岙底，并邀请左靖工作室在此开展乡土文化挖掘工作，内容包括乌衣红糍等《非遗》考现、筱村童

谣的影像记录、清代以来契约文书的收集整理、方志小说的在地创作等。

在思考复兴这个村落的步法时，左靖工作室团队意识到，稻米、泉水、风土酿造出的红糍是连接过去、未来和当下的脉络。当地的乌衣红糍最早是由村内吴氏先祖迁居时带来，因其独特的制作过程闻名浙闽一带。在延续至今的乌衣红糍制作过程中，米饭的颜色在六七天的时间里，如天边的光影，由白色变为红色再变为灰白，继而过渡到红色，最后转为黑色，这一过程称为“红地起乌衣”。在清末及民国期间，徐岙底约有糍窑100多条，几乎家家都做糍。时至今日村内的工坊仍在继续使用，于2012年被列入第四批省级“非遗”名录。因此，作为徐岙底村最具代表性的“非遗”，红糍自然就成了左靖工作室深挖当地文化价值的重头戏。

“红地起乌衣”红糍主题展自然是围绕红糍展开，以绘本、摄影、视频、图解、实物等形式，着重介绍了红糍的生产流程、红糍工坊的考现、红糍的相关数据和与红糍相关的食物。但除此之外，展览还展示了左靖工作室挖掘当地文化内容的其他成果，如

Bird's eye view of Xu Ao Di village  
徐岙底古村落俯瞰





# Co-working in China: Scaling-up to Oligopoly

## 联合办公在中国： 从规模化到寡头化

by Yang Biqiong  
杨碧琼

**After a boom lasting four years, we have reached a point of polarization on the topic of co-working in China. Leading spaces continue their expansion with the facilitation of capital, and small and medium-sized players are at the risk of being merged or superseded due to lack of capital. This adjustment phase is already well underway.**

在经历了四年的疯狂生长之后，联合办公在中国呈现出了两极分化的趋势，头部企业在资本助力下继续扩张，中小玩家则因资本退潮面临兼并或淘汰结局。联合办公行业已经进入深度调整期。

The “shared office” concept began to flourish in China in 2015. Against the emergence of this trend, a “co-working” pattern focusing on flexible space and flexible leasing arose, attracting players including Ucommune, mydream+, Kr Space, and nashwork among others. In 2016, WeWork — the originator of the co-working concept, arrived in China and made its presence known loud and clear. From 2016 to the first half of 2018, shared offices grew to a peak, represented by several major players striving to become market leader. Easy financing contributed to this rapid sectorial expansion.

The tide of capital resulted in an encirclement of the sector. The volume of co-working space available across the country has rocketed in the past few years. According to real estate services and investment firm CBRE, in 2018, shared offices absorbed about 500,000 m<sup>2</sup> of the Greater China office market in one year, three times faster than in 2017. Nine major shared office brands expanded by a total of 125 outlets in seven major cities in China, with work spaces increased to over 100,000, far higher than in 2017. Shanghai has become the largest shared office market in the Asian Pacific region, with shared offices accounting for 3.5% of all office space. In terms of China’s urban co-working space distribution, Shanghai ranks first, followed by Beijing and Shenzhen.

Nevertheless, following this crazy boom, the co-working concept has showed its fatal flaws: disorderly internal management, serious homogenization, single profit mode, and this has naturally led to a capital slump. Many small and middle brands have disappeared. According to the VC SaaS database, between 2018 and March 2019, the number of co-working brands fell by around 40, and those developing slowly or on the verge of bankruptcy or shut-down accounted for 28.1%.

In April 2018, WeWork China acquired naked Hub. From January to October 2018, Ucommune merged six co-working brands (NewSpace, WOO Space, Wedo, Workingdom, atwork and fountown). In January 2019, ibase under Gemdale Properties and Investment Corporation Limited exited from the industry quietly. At the end of May, Dreamwork entered bankruptcy liquidation proceedings.

Meanwhile, even leading firms have experienced the pain of rapid expansion. For example, Kr Space, ranked first in expansion and area under management in 2018, was the first in crisis at the beginning of 2019. After retrenchment and store shutdown, they received an injection of RMB 1 billion financed by IDG Capital,

Gopher Asset Management, and Tops Capital. After this new round of financing, Kr Space announced its transformation from a “co-working” space to a “comprehensive office service + new asset management” company.

This kind of transformation may simply be a continued exploration of the co-working profit model. Currently, in co-working, rental and value added services are the points of profits, of which rental is undoubtedly the core, i.e. earning the price differential in rental prices. Zhang Peng, CSO of Ucommune said: “we are trying diversified earning models, but currently, rental is still the core”. Despite co-working brands being less than satisfying to just being “subletters” collecting rentals, they provide subtenant firms with value beyond the office itself, including industrial and commercial administration, legal support, resource linkage, financing roadshows, and more. But after four years of development, we have seen little profit from these value added services.

# THE CO-WORKING CONCEPT HAS SHOWED ITS FATAL FLAWS

Because co-working mainly serves small companies and startups, it is hard to form a commercialized mode, not to mention see any kind of breakthrough.

So, although different brands have their own focuses — Kr Space has its strength in generating high-end products, Ucommune continuously proposes new idea and concepts to attract customers, WeWork outperforms in respect of operation experience, nashwork focuses on independent spaces for Chinese companies, ultimately earnings will remain all about rental.

This means co-working brands are forced to prospect big clients who will lease up to 100 units or even the entire space, making it easier to solve office occupation ratio and income stability issues. In addition, big clients have much potential to explore, for example, WeWork launched a tailor-made

service — Powered by We, integrating space, efficiency and corporate culture into one, and helping their clients enhance efficiency and innovate culture by providing design, technology, innovation, operation and change management. One project located in Building #2, Lifung Plaza, Shanghai was recently released by WeWork as the first tailor-made space for a big client in China.

Undoubtedly, the co-working sector has started shuffling its decks. WeWork plans to list on US capital markets in September. Ucommune is also actively seeking to list in the US. When things shake down, co-working may be a game that only leading companies have the wherewithall to play. ■



# WeWork, China Flagship Space

LineHouse

WeWork Weihai Lu is nestled in a turn of the century brick building; a former opium factory and artist residence of 5500sqm. This building is surrounded by an old residential district in the heart of Shanghai. In collaboration with WeWork, Linehouse, a young architecture practice based in the city, celebrated the grandeur of the building, encapsulating the feeling of a grand hotel, transporting guests and members on an unexpected journey of whimsy, voyeurism and festivity.

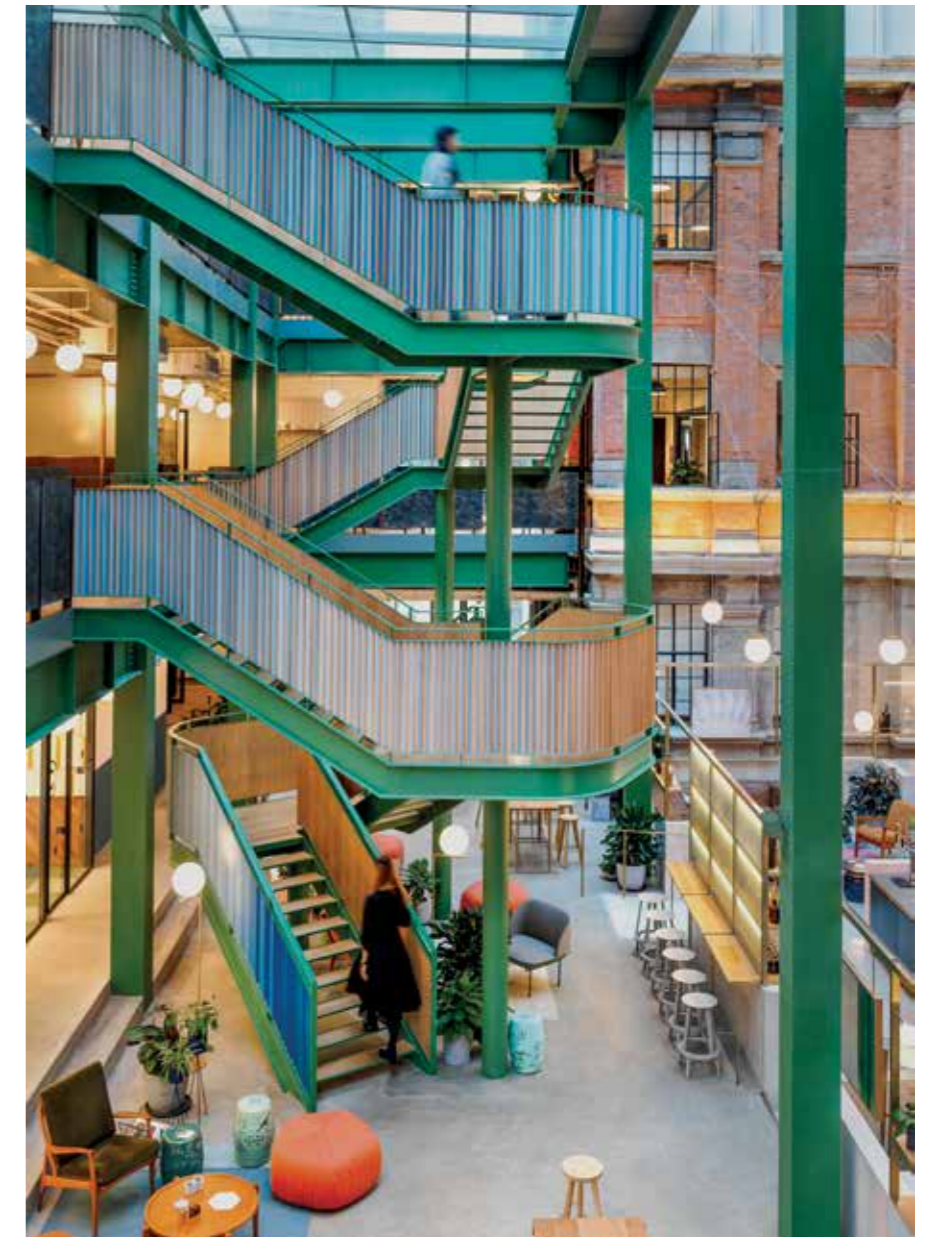
Upon arrival guests pass through an old laneway, framed by a traditional Chinese arch. The lane walls are painted pink and the floor pink concrete. Above, lights are festively suspended between the laneway walls.

The existing site is a combination of a brick historical building with further industrial additions that have been made over the years. The reception is located in this in-between zone of the old and new.

A green steel staircase weaves through the circulation space connecting all three levels of the front of house. The colours alternate as you travel up the stair creating a gradient of tones, and shifting views from wood to blue. The staircase leads to the two pantry areas that play on the opium factory narrative, with large scale poppy wallpapers, hand painted in gold.

Passing through the central atrium space to the back bar located within the heritage building, one is transported to a tropical retro oriental parlor. A gold gradient wallpaper wraps the perimeter wall, with hand painted Shanghai ladies, clothed in zebra attire and adorned in gangster bling, their era blurred between the 1920's and the present day.

Custom wallpapers continue to play on this festive theme, with geometric and interweaving patterns in pastel tones, these are hand painted over in gold and green. ■



大约是从2015年起，“共享办公”概念在国内流行开来，主打弹性空间、弹性租期的联合办公这一新兴业态也就随之兴起，很快吸引了众多品牌如优客工场 (Ucommune)、梦想加 (mydream+)、氪空间、纳什空间等纷纷入局，到了2016年更有联合办公鼻祖 WeWork 大举进入中国市场。2016年至2018年上半年堪称共享办公的扩张高峰期，主要是市场上几个主力玩家在争抢成为头部企业，加上共享办公融资比较容易，所以扩张迅速。

资本的狂热带来了整个行业的跑马圈地，过去几年间国内联合办公体量的飙升达到惊人的程度。世邦魏理仕的研究数据显示，2018年，共享办公在大中华区写字楼市场全年吸纳面积约50万平方米，为2017年的3倍；9个主要全国性共享办公品牌在7个国内主要城市新增125个网点，新增工位数超过10万个，均较2017年有明显增长。上海已成为亚太地区最大的共享办公市场，共享办公在写字楼面积中的占比高达3.5%。国内联合办公体量规模中，紧随上海之后的是北京和深圳。

然而，随着市场进入理性阶段，野蛮生长后的联合办公逐渐显露出许多问题，比如内部管理混乱、同质化严重、盈利模式单一等。伴随这些致命问题而来的便是资本的冷淡，不少中小品牌因此相继阵亡。据VC SaaS 数据显示，2018年至2019年3月间，联合办公品牌减少约40家，发展缓慢、濒临破产倒闭状态的联合办公空间品牌占总数的28.1%。

2018年4月，WeWork中国收购裸心社 (naked Hub)；从1月到10月，优客工场接连并购六个联合办公品牌 (洪泰创新空间、无界空间、Wedo联合创业社、Workingdom、爱特众创、方糖小镇)。2019年1月，金地商置旗下ibase原点黯然退出联合办公行业；5月底，聚梦空间进入破产清算程序。

与此同时，即便是行业里的头部企业，也不得不面临高速扩张的阵痛。在2018年扩张速度最快、管理面积冲到第一名的氪空间，到了2019年初率先遭遇危机，经历了裁员、关店风波，直至今年5月获得IDG资本、歌斐资产、逸星资本联合领投的10亿元融资，才算化险为夷。新一轮融资后，氪空间宣布将从“联合办公”转向“综合办公服务+新型资产管理”的业务模式。

这种业务模式的转向或许是对联合办公商业盈利模式的继续探索。目前国内绝大部分的联合办公将租金和增值服务作为盈利点，但在其中租金毫无疑问是根本，即赚取工位租金的价差。优客工场首席战略官张鹏曾表示：“我们在尝试多元化的收益模式，但现阶段租金仍然是我们收入的核心。”尽管联合办公品牌不满足于只当个收租的“二房东”，而是希望可以为入驻企业提供超越办公场所本身的各种价值，比如工商行政、法律、资源对接、融资路演等配套服务，但经过四年的快速发展，我们并未看到这些增值服务给联合办公带来多少盈利。而所谓的打造社群、满足用户

体验感，由于很多联合办公品牌主要面向的都是小公司和创业者，因而社群共性很难形成可商业化的模式，也难以形成突破。

如此看来，尽管不同品牌有不同的侧重点，比如氪空间在高端产品上更具优势，优客工场在不断提出新鲜玩法和概念吸引客群，WeWork胜在运营经验，纳什空间则侧重满足中国企业对于独立空间的需求，但至少从目前来看，最终收益都要回归到租金上。

这样就迫使联合办公品牌去努力拓展大客户，因为大客户通常会整租上百个工位甚至一整个空间，它们的到来更容易解决联合办公入驻率和收入稳定性的问题。而且，大客户还有更多潜力可以挖掘，比如WeWork推出名为“Powered by We”的大企业定制服务，将空间、高效及建立公司文化融合在一起，通过提供设计、科技、创新、运营和变更管理，帮助大企业成员提高效率与创新文化。WeWork最近公布的位于上海的利丰广场二号楼项目，就是大企业定制服务在中国的第一个落地项目。

一个不争的事实是，联合办公行业洗牌已经开始。WeWork正计划于9月份在美国资本市场上市，优客工场也在积极寻求在美国上市。在不远的未来，联合办公领域或许只是几个头部企业的游戏。■





## WeWork 中国旗舰店

2016年建成的WeWork中国旗舰店，选址在上海市中心威海路一带老居民区中的一栋历史建筑里。这幢砖楼面积达5500平方米，曾经是鸦片工厂，也曾是艺术家聚集地。担当旗舰店设计的联图建筑设计以此为基础，融入了豪华酒店的氛围，带来客踏入一场奇异且趣味的冒险之旅。

来访者穿过一座老式石拱门，再走过一条粉色的巷道，会看到前台位于传统与现代建筑风格的交接处：其底座由混凝土筑成，正面使用了有历史感的木质镶板，青铜色金属台面的四角向上方延伸，勾勒出上部的框架，后方整面墙由一排排蓝色小抽屉组成。

整座楼高三层，内庭中空。原有的金属支撑结构被涂上了青绿色，新增的金属架则是黑色，带扶手的保护隔板选用了暗色系杂色欧松板。中庭层与层之间由绿色的铁质旋转楼梯相连。楼梯外侧由数块三角橡木拼成，并在内侧刷上了不同层次的蓝色。拾级而上，楼梯颜色变换，由原木向蓝色过渡。

茶水间里以罂粟花为主题的大幅墙绘，呼应了鸦片工厂的历史。

中庭四周的建筑外墙极富历史感，水磨石地板贴合墙面弧度向上延伸，俯看形似托盘。蜡笔质感的蓝、绿、粉、灰色色带在墙面和地面并次排列，拼成“硬质”地毯。

穿过中庭来到酒吧间，热带风与怀旧东方风情的碰撞令人产生时空错置感。鹅黄色渐变的手绘墙上，老上海的太太小姐们身着斑马条纹套装、戴着嘻哈配饰，难以判断她们到底是从1920年代穿越而来，还是一不小心从现代回到了过去。

楼内的墙纸为特别定制，延续了欢乐谐趣的主题概念以及蜡笔色的色调，金色和绿色为主的几何图案也都是手绘而成。■



# A-Idol: Alibaba's New Attempt at Gender Inclusion — though AI



Alipay Foundation, Alibaba AI Labs and the China Women's Development Foundation (CWDF) have recently jointly announced the "A-Idol Initiative" to bring jobs related to the development of artificial intelligence to underdeveloped areas in China, with a focus on prioritizing these opportunities for women.

The first phase of the initiative, launched in a ceremony held in Tongren city, Guizhou Province in Southwest China, will cover 10 poverty-stricken counties across China, benefiting approximately 2,500 households. Participants are entitled to free training courses on labeling and curating data, which is imperative to machine learning and the development of AI.

## AI豆计划： 阿里的“AI扶贫”尝试

8月6日，支付宝公益基金会、阿里巴巴人工智能实验室联合中国妇女发展基金会启动“AI豆计划”，试图通过人工智能产业释放出的就业机会，探索“AI扶贫”的公益新模式。该计划的帮扶重点是缺乏科技产业资源的贫困地区群众尤其是女性，通过免费职业培训使其成长为“人工智能培育师”，帮助其在家门口实现就业脱贫。

“AI豆计划”的首个试点选择在贵州铜仁市万山区。阿里巴巴人工智能实验室作为技术支持方，已经培训出31名“AI培育师”，其中77%为贫困女性，90%的人目前没有收入来源。阿里巴巴相关技术专家介绍称，女性相比之下更细心和耐心，契合AI标注的工作需要；另一方面，数据指出受限于工种需求等因素，女性的脱贫难度较之男性更高，因此对AI扶贫有更紧迫需求。

阿里方面表示，未来项目的整体规划将聚焦贫困地区，寻找更多更适合发展“AI标注”产业的地区来落地。在试点阶段，每个基地预计孵化培育20至50名骨干，就近覆盖50至100人的就业。

阿里人工智能实验室总经理陈丽娟介绍说，接下来阿里还会推出“AI培育师”职业考评体系，以推动行业规范化，同时承诺每年向“AI豆计划”输送至少产值1000万元的订单，开放AI标注服务平台，呼吁全行业主动释放产业红利。■

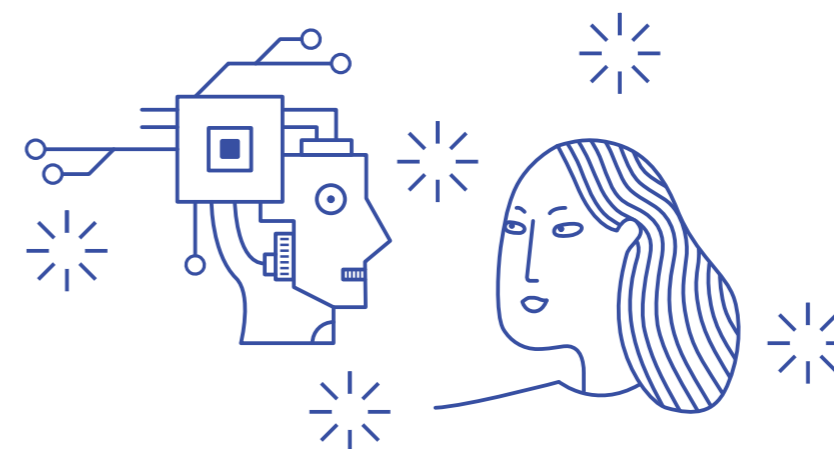


Illustration by LAVA BEIJING

By bringing jobs to places such as Tongren, local residents, especially women, can be spared the hardship of relocating in search of better living conditions, and leaving the loved ones behind, a common issue in China's rural areas.

Alibaba AI Labs has committed to orders worth at least 10 million RMB per year to ensure the sustainability of the "A-Idol Initiative", open to welcoming other partners from China and abroad. CDWF, a nationwide non-profit dedicated to improving the overall quality of women's lives in China, will act as a recruitment partner to the program.

"The competence of data curators determines the accuracy of machine learning and the ensuing application of AI. We believe women can not only access more professional job opportunities from the 'A-Idol Initiative,' but also master new and critical skills in the digital era", said Lijuan Chen, head of Alibaba AI Labs.

In addition, Alibaba AI Labs has designed a set of professional qualifications so that the skills acquired by participants through the initiative can be even more widely marketable. ■



# The Dulong Blanket: From River to City

中国 / YUNNAN / CN ▼

## 独龙毯： 从江畔到城市

Photo courtesy of China  
Promoting Minority Culture  
& Art Association (CPMCAA)  
图片提供方：中国少数民族文化艺  
术促进会



For the Dulong people of southernmost Yunnan province, there is a cultural symbol prized above all others: the Dulong blanket. In the ethnic group's own language, it's known as the "jodo", which simply means blanket. By day, it is worn as clothing, by night, to sleep under. Woven from linen, the traditional jodo is brightly dyed. Many people refer to the Dulong people as "weavers of rainbows".

In October 2014, the China National Minority Culture and Art Promotion Association, the Beijing Contemporary Art Foundation and Shanghai ZucZug Clothing Company came together to start the Yunnan Dulong Cultural Integration Project, established by a local unit of the Yunnan Youth Entrepreneurship and Employment Foundation. The aim of the project was to protect and ensure the continuation of traditional cultural diversity among ethnic minorities, promote economic development of minority areas, and improve the quality of living for these communities, especially local women.

In its first five years, from initial research to market positioning, to design and product

development, right up until the "red thread" success of the Dulong blanket, the project has enabled the successful melding of ethnic minority culture and innovative design. Secondary design has made these products more suited to the aesthetic tastes of Chinese urbanites yet retained the cultural context of ethnic culture. This has been a new journey in culture-led poverty alleviation helped by artists from minority communities and new fresh products designed to also promote empowerment.

The project has successfully entered its third phase, directly benefiting more than 50 individual women, providing local poverty alleviation and indirect benefits for up to 200, and increasing per capita annual incomes by between 5,000 and 20,000 RMB. More women have been encouraged into weaving, so project has expanded its scale of production, added designs, and grown its sales channels. And while local women have seen their incomes increase, the project has also protected and enhanced the status of Dulong heritage and built the group's self-confidence as an ethnicity steeped in culture. ■







在我国云南少数民族独龙族的文化中，独龙毯是独一无二的文化符号。独龙毯在独龙语中叫“约多”，意为披毯，日可当衣，夜可当被。传统的独龙毯由麻料织就，颜色鲜艳，因此善织的独龙族人被称为“织彩虹的人”。

自2014年10月起，由中国少数民族文化艺术促进会、北京当代艺术基金会与上海素然服饰有限公司共同发起，开始了云南独龙族文化融合项目，由云南省青年创业就业基金会作为在地执行单位。项目的初衷在于保护、传承和弘扬少数民族优秀文化及传统文化多样性，助力民族地区经济发展，为少数民族社区尤其是当地女性开创更美好的生活。

项目开展五年来，从前期调研、商业定位到设计方案、开发产品，再到独龙毯及其衍生品进入城市成为“网红”商品，实现了民族文化与创新设计的成功结合。二次设计使产品在保留民族文化文脉的同时，更适应当代都市审美情趣，由此走出了一条以少数民族技艺帮扶为主线，结合创新设计赋能的新产品的文化扶贫新途径。

项目迄今已成功开发三期产品，直接受益个体妇女超过50人，当地脱贫人数和间接受益达200人，人均年收入增加5000至20000元不等。项目通过每年增加招募织女数量，扩大了生产规模，新增设计样式，拓展推广销售渠道，在切实提高当地妇女收入的同时，也保护和推广了独龙族文化，增强了其民族自信。







Building house  
起房子



Fishing in Rice Field  
捕稻田鱼



Longtang Scenery  
龙塘村貌

Photo: YouChange  
Foundation  
图: 友成基金会

# Longtang Village: Exploring a Sustainable Village Development Model

## 苗寨龙塘村： 探索可持续村庄发展模式

Text: **Li Jiachen, Wei Haolong**  
文: 李佳琛, 魏浩龙

Longtang village is a traditional Miao village comprising of three natural villages and 1,280 villagers, in Leishan, Guizhou. Each village is filled with maple trees for spiritual protection. Houses are built with fast-growing shirt wood from the nearby mountains. A fish-rice symbiosis in the rice paddies gives villagers plenty of animal and plant protein. This is a poor area. With limited resources, hidden in the mountains, the Miao people may naturally follow principles of sustainable development, but in pursuing development over the past ten years, their way of life is changing. The children in the village speak less Miao dialect, and only a few elders know how to sing the ancient Miao songs. Many traditional crafts are being lost. In August 2018, YouChange China Social Entrepreneur Foundation joined

hands with Sunac China Holdings to help Longtang village explore ways to eradicate poverty in the region while preserving and restoring the village's traditional culture and way of life. A conceptual plan based on protecting the Miao ethnic culture and traditional lifestyle, supporting the collective economy, stimulating villagers motivation and enhancing cohesion was used as the foundations for a new pilot project. While considering the overall development of the village, YouChange Foundation wanted to coordinate development of society, economy and environment.

In terms of poverty alleviation and economic development, this project has chosen to focus on experiences of the Miao lifestyle, first by supporting the primary industry — farming — and then by developing a secondary

industry — agricultural processing. Most economic activity in the village is collectively carried out according to the principal of farmer control. Locals are in control of the whole process from production to management to reaping the meagre benefits. New modes will include homestays, catering, experience tours, herding, processing, giving villagers a range of employment and business options. Cooperatives will be maintained to provide living security through social dividends and public welfare projects. On the premise of maintaining the agricultural foundations of the village, high-quality old varieties and ecological farming methods will be encouraged. Crops will be grown to resist drought, and high-value agricultural products will be produced to achieve the most efficient use of natural resources.





Harvesting  
收割稻谷



Miao's Sacrificial Ceremony  
苗年节祭祀仪式



Longtang Embroidery Ladies  
龙塘绣娘

## PROVIDE HIGH QUALITY EDUCATION

For educational development and to provide fair high quality education for all ages, YouChange Foundation supports village education, providing necessary materials and introducing high quality teaching resources for local students. It also provides training in capacity building includes homestay management, catering, and hospitality services to help villagers acquire the skills they need. YouChange Foundation has also opened a village lecture hall to provide lifelong learning opportunities for villagers outside of compulsory education. In particular, the foundation assists women in organizing embroidery groups, volunteer groups and other self-organized groups to participate in village development. It also introduces

handcraft making and sales trainings targeted at the women of the village.

### INITIAL SDG VILLAGE PHRASE

YouChange Foundation's poverty alleviation program has operating for more than a year, and its sanitation publicity has guided villagers to reduce garbage and recycle materials. For example, the village road is equipped with garbage bins and ashtrays. The established volunteer team cleaned more than 1,000 kilograms of road garbage, and the landscape renovation has further enhanced the living environment. The whole village has been listed according to the national poverty alleviation standards, and there are only a few households in poverty now. The women in the village have organized 40 embroidered groups,

and they have begun to design and experience products to serve the embroidery experience of tourists. The villagers' farmhouses have been rehabilitated and villagers' livelihood has gradually increased. Homestay management, rural tour guide, and embroidery crafting trainings have also delivered to more than 100 villagers. After more than a year now, the village is undergoing some major transformative changes. ■

贵州省黔东南自治州雷山县龙塘村是苗族历史迁徙地之一，历史底蕴丰厚，于2015年被列入国家公布的第二批中国传统村落名录。这是一个典型的苗族村寨，由三个自然寨组成。村子里有枫香树护寨，民居是用山上到处可见的速生杉木搭建而成，稻田里鱼稻共生……高山中的龙塘村依靠着大自然，自然而然地遵循着可持续发展的原则认真生活着。然而由于环境闭塞，缺乏劳动力和技术，这个村子成为了国家一类贫困村。

2018年8月，友成企业家扶贫基金会携手融创中国控股有限公司，在当地政府的扶持下，开始参与龙塘村的脱贫攻坚和乡村振兴工作。双方重新梳理了龙塘村的产业结构和资源优势，提出将从文旅切入、产业落地、文化激活、教育帮扶四个方面来协助龙塘村脱贫发展。项目在考虑村庄整体发展的同时，也着重考虑了如何让村庄具有更可持续发展的生命力。

在消除贫困、发展经济方面，此帮扶项目选择了以发展苗族生活方式体验游为主，继而推动第一产业种养殖业发展，再带动第二

产业(如农产品粗加工)的发展之路。村庄的大多数经济发展工作由集体经济主体——农民专业合作社来完成。农民专业合作社遵照“民办、民管、民受益”的原则作统筹管理，以资金互助或项目开展的形式支持村民参与发展民宿、餐饮、体验游、种养殖、初级加工等多种业态发展模式，让村民有不同的就业创业选择。对于发展条件较差的弱势群体，合作社将通过社员分红和公益性项目给予生活保障。

在保持原有农业产业的前提下，友成基金会一方面支持当地恢复种植优质老品种和生态农法，另一方面也着重帮助他们改进品种和种养殖技术，以便建立起可持续粮食生产体系，增强作物的抗灾害能力，促进可持续农业发展，并形成旅游产业的可靠食材来源及相对高价值的农产品，实现自然资源的高效利用。

要实现自主发展自然离不开教育。为了让当地所有适龄学生都享受到公平的优质教育，项目一方面扶持村教育基金，为在读学生提供必要的物资和资金支持，另一方面也在积极引进城市里的优质教学资源。此外，针对

村民的教育发展，提供了包括民宿经营、餐饮、接待服务等各方面的能力培训，帮助村民获得能接受的优质技术，以使其掌握在就业和创业过程中所需要的技能。友成基金会称今后也将开设村民大讲堂，根据村民意愿提供课程，以使村民能持续获得新的技能。

帮扶项目开展一年多以来，龙塘村里在环境卫生、人居环境方面有了很大的改观，全村也已按国家脱贫标准出列，贫困户仅剩几户。村里妇女自组织成立的绣娘团有40人，也开始设计体验产品，服务于游客刺绣体验。通过资金互助改造的村民农家乐也逐渐增加；友成基金会支持合作社建设的民宿也正在建设中；民宿经营、乡村导赏员、刺绣手工艺等培训课程已使100多名村民受益。然而，在发展致富与传统文化及生活方式保存之间取得平衡，从来都不是一件容易的事。如中国大部分“乡村振兴”计划一样，龙塘村的扶贫项目依然在探索阶段。■



# 文化视觉

C2030 ISSUE 2 - 2019



Zhang Weiming 张维明

# Visualize Me



# Design a Series of Three Banknotes based on Your Personal Value

## 依照个人价值判断，设计三种面额的纸币

By **Céline Lamée**  
Results from design course with second year students at Beijing Institute of Fashion Technology (BIFT)  
Oct -Dec 2018

**森林**  
北京服装学院二年级学生设计课程作业，2018年10-12月



A critical part of design education in my opinion is for students to set their own assignment. A design project only comes to life if it has a meaning for you. No matter how general/boring the assignment might seem at first, you have to find a way to engage and make it your own. For the BIFT (Beijing Institute of Fashion Technology) students this seemed like a good exercise to set their own agendas in preparation to finding their own in their future client's agendas. Paper money is a very grateful design object, with its many layers of typography, graphics and yet small scale. It has to communicate to all levels of society. Yet I was curious to what the students themselves found important.

依我之见，设计教育的一大要义在于让学生自设任务。一个设计项目，只有当它在你看来是有意义的时候，才会有生气。无论一个题目初看起来如何普通或乏味，你都必须设法进入，使之变成你的。对北京服装学院的学生来说，这是一次很好的锻炼，能让他们练习自己设定目标，练习将来如何在客户的要求中找到自己想要达成的任务。纸币是一个非常精致的设计品，将多层次的版式和图形设计集合在那么小的尺度上。它必须能与社会所有阶层沟通。但我也好奇，在学生们自己看来什么是最重要的。

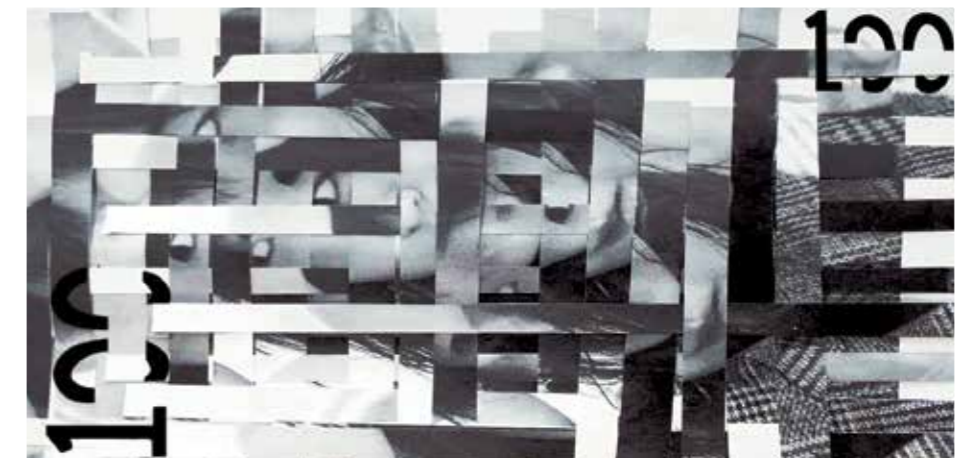


**I want my money design to reflect on how you capture memories in this fast world we live in**  
我的钱币反映了你在这个快速变化的世界上抓取了哪些记忆  
李健运 Li Jianyun





**Bring back face-to-face communication within the family context**  
 让家庭成员回到面对面的交谈  
 张曼妮 Zhang Manni



**My money will show mental problems that come from the pressure of trying to earn money, or the pressure of not having (enough) money**  
 赚钱的压力, 钱不够多的焦虑, 让人神智崩溃  
 燕鹏宇 Yan Pengyu





By copying something many times the value will change  
 多次重复之后, 价值就会变  
 魏薇 Wei Wei

10

I am from Guangzhou  
 我来自广州  
 Where are you from?  
 你来自哪里?

SAP MAN 广州

SIKUAI 四川

XIKUAI 福建

DAGAININ 海南

SHE KUAI 江苏

ZA KO 闽南话

XIKUAI 客家话

10

50

I am from Guangzhou  
 我来自广州  
 Where are you from?  
 你来自哪里?

WUSIKUAI 四川

NUXIKUAI 福建

NAODANIN 海南

WUSHEKUAI 江苏

NVXIKUAI 客家话

OZAKO 闽南话

NGSAPMAN 广州

100

I am from Guangzhou  
 我来自广州  
 Where are you from?  
 你来自哪里?

YIBEI KUAI 四川

GEBA KUAI 福建

NAODA NIN 海南

YE BE KUAI 江苏

GEBA KUAI 闽南话

GEBA KUAI 客家话

YATBAK MAN 广州

I want my money to be a tool for people from different hometowns/provinces to find each other. For example by using dialect 方言  
 钱币可以是工具, 比如说通过使用方言, 让来自各地的人找到彼此  
 邓晓彤 Deng Xiaotong



# A SENSE OF PLACE 身临其境

URBAN CAMPAIGNS FROM THE BOTTOM-UP  
FROM THE “THE THIRD CITY” TO NOVEL URBAN AND RURAL PARADIGMS

自下而上的城市运动  
从“第三城市”到新型城乡范式

“Significant Others — Incomplete by Design” was the main theme of the 2019 Grad Show of the School of Art & Design at BIFT, and part of the relevant one-year program developed by The Global School (Beijing) and curated by Beatrice Leanza.

“A Sense of Place” is part of the program, and projects in this section take an interest in the expanded dimension of “place” as product of transformed social and economic conditions which have radically altered the physical landscape and cultural ecosystems of both urban and rural centres in more recent years.

Taking the historical city of Luoyang as a case study, the students aimed at developing new visual and communication tools that explore the complexities of socio-economic development of a prototypical third tier city.

Visual communication and product designs look at different ways to communicate and engage locality and grassroots culture to rekindle the rapport between communities and their living ecosystems. Contextual conditions of economic production, historic traditions and architectural heritage are engaged to generate novel tools of social impact from the reality of booming third tier cities, to historic urban district as well as rural villages.

Students have been perusing the past and present history of Luoyang, one of China’s treasured ancient capitals, to imagine how novelty and authenticity can coexist through design narratives germinating from



lesser-known, vernacular stories surviving in the quotidian life of its residents, amidst its sacred architecture as much as its modern-day hip culture, to both celebrate and encourage a re-awakening of a genuine culture of “place”.

We have here chosen to portray only some of students’ projects, but more information can be found online.

“重要的另一半不完整为设计”是北京服装学院艺术设计学院2019届本科生毕业作品展的主题,也是由世界学院(北京)制定、毕月策划的一年计划的组成部分。

“身临其境”是展览六大议题板块之一。近年来,中国的社会和经济条件发生了巨大变化,从根本上改变了城市和农村中心地区的自然景观及文化生态系统。因此,“身临其境”板块特以拓展“地方”维度作为主题。

这组作业以历史名城洛阳作为案例研究对象,旨在开发新的视觉和交流工具,探索这座可作为原型的三线城市的经济社会发展的复杂性。

视觉传播和产品设计着眼于通过不同的方式来传达并深入地方及基层文化,旨在重新点燃社区及其生活生态系统之间的和谐关系。从繁荣的三线城市现实到历史城区再到农村地区,利用经济生产、历史传统和建筑遗产等背景条件,推出新型社会影响工具。

学生们一直在研究洛阳这座中国著名古都的过去与现在,想象新奇和真实性如何通过设计叙事共存——这些设计叙事内容源于居民日常生活中存在的鲜为人知的白话故事——就好像神圣建筑与现代时尚文化在这座城市里共存一样,以便鼓励并重新唤醒真正的“地方”文化。

此处呈现的仅为部分学生作业,更多信息可见于网络。

To learn more about Significant Others: Incomplete by Design:  
<http://creativelab.bift.edu.cn>

To read more about the development of the program and The Global School:  
[www.bside.design/bift](http://www.bside.design/bift)

To learn more about BIFT School of Art & Design:  
[ys.bift.edu.cn](http://ys.bift.edu.cn)

更多关于“重要的另一半 不完整为设计”展览的信息:  
<http://creativelab.bift.edu.cn>

更多关于该计划和世界学院的信息:  
[www.bside.design/bift](http://www.bside.design/bift)

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Cheng Weixiang 成蔚翔





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Zhong Weiming 张维明







## Yao Yingjia: Design can be a Tremendous Help to Entrepreneurs in Solving Problems

### 姚映佳： 设计是企业家解 决问题最好的助力



**Yao Yingjia**, VP of the Lenovo Group, General Manager of the China Energization Center, and Chief Design Officer of Lenovo

“Solving problems” is the raison d’être of the Lenovo Design Organization, a newly established multi-profession synergistic group set up by the Chinese IT giant. Lenovo believes every new “Industrial IoT” needs to dedicate itself to creating more value for users, the public, and the country. As an early Chinese provider of “computation”, Lenovo is well suited to play an important role at every stage in the value chain from data entry, data search, and data storage to data analysis, data mining and data re-use. Lenovo’s innovative “equipment + services” model will act as vital foundations for the development of the “Smart IoT” eco-scenario.

This paper was extracted and edited from an interview with Yao Yingjia, VP of the Lenovo Group, General Manager of the China Energization Center, and Chief Design Officer of Lenovo, in the “Focus on China Design” interview column of DESIGN magazine (March 2019).

联想设计组织是一个围绕着“解决问题”所构建的多专业协同组织。在联想看来，每一个新的“产业物联网”都应该致力于如何更好地为用户、社会和国家创造更大的价值。作为最开始“运算力”的提供者，这样的趋势非常适合联想从数据入口、数据的搜集、数据存储、到数据分析、数据挖掘和数据的再次应用的全价值链中发挥更加重要的作用。联想采用的“设备+服务”创新模式，将会焕发无尽的生命力，成为“智能物联网”生态场景构建和落实发展的基石。

本文摘自《设计》杂志《中国设计·大家谈》专栏对联想集团副总裁、中国赋能中心总经理、首席设计官姚映佳的专访（2019年3月刊），此处有删减。



# THE POWERFUL POTENTIAL OF INDUSTRIAL “SMART IOT”

## What stages has Lenovo gone through in driving innovative design?

Lenovo Design experienced four major development stages from starting up and learning, to growing and maturation. The initial seeds were sown in 1996 and built on in the learning stage from 2000 to 2005, which coincided with the boom and expansion of the PC market and the purchase of IBM, turning us into an international enterprise. From 2005 to 2010, we stepped into the growing stage, involving cross-border amalgamation and macro thinking. Since 2010, Lenovo Design developed a set of unique world-class design mechanisms and systems focused on solving problems and creating value. These were developed to ensure continuous evolution of the team, competence, theory as well as methods behind design. We created “Organizational Design Competences” for enterprises, which play a more and more important role in our core competitiveness. In 2019, we were awarded the Red Dot: Design Team of the Year, and we have gone on to improve the structure of our organizational productivity. This will help us realize brand vigor from the inside out.

## Please introduce to us the Lenovo Innovation Design Center and its works.

Today, Lenovo Design is a multi-dimensional platform organization. The design team supports and consolidates existing work in individual business units, and also focuses on thinking and creating new commercial value and exploring new modes. Lenovo Design will, acting as a full-functional “agile innovation” organization, play both pull and push roles in forward-looking “right brain” value generation. This will be used in the transformation from SET (social, economy, technology) to SDT (social, digital, technology). We have called this

systematic organizational direction the Energization Center, i.e. sharing core competence and enterprise strategy, and what is more important, bringing good external industrial resources and competences to Lenovo, in combination with Lenovo’s strengths and development demands, to hatch and nourish new growth points, and new service and experience values.

In the past, Lenovo’s design drivers continuously and mutually combined several dimensions including products, people, organization, industry and society, in order to improve Lenovo’s operations. With respect to responsibilities, we remain a cross-industrial multi-professional synergy team, in which different professions synergize to trigger possible innovation opportunities, while guaranteeing agile risk awareness. Considering the traditional product dimension, our early works covered ID design, graphic design, interaction design, new materials, new processes and organizational design, and electromechanical integration design. In view of organizational responsibilities, the design innovation organization of an enterprise should be a multi-professional synergistic organization focused on solving problems and given optimum resources to do so.

## Smart reform represented by IoT, cloud computing/edge computing, and big data/AI is kickstarting a fourth industrial revolution. How does Lenovo stand out in this? What role does innovative design play?

Today, it appears that “scenario demand” and “service demand” at the consumption end are in flux, while far-reaching changes at the supply and industrial ends are also taking place. In the future, in the regional framework of the “Smart City”, booming

industrial “Smart IoT”, new interlinked technology and new interlinked competence will make it possible to solve complicated cross-scenario and cross-field problems, and it is right that this possibility opens the floodgates to efficient urban and social development problem solving.

The powerful potential of industrial “Smart IoT” is expanding Lenovo’s excellent data computation into the wider society. Its operating power brings “data entry competence”, “data storage competence”, “data analysis competence” and “data mining competence” together. From the angle of digitalization survival, with people as the consumption core, equipment innovation is still an important means of opening and expanding data entry. Individuals, organizations and industries obtain richer data via various innovative equipment data entries. This is how to build a data mansion in which data may be best stored, analyzed and mined, in order to think and change the future by means of more efficient linked analysis and the innovative mining of “deep data”, through “surface data” and based on existing experiences, thus forming more efficient and practical total scenario solutions.

In the 2C field, the “economy of attention” is a new dimension concerned with individual enterprises. This breaks down to how to attract customers by means of better experience design, in order to

construct a better consumption links. The Lenovo Unmanned Store is an example. In the future, “extended design innovation” will be a guarantor of better innovation plans such as “scenario insight” and “service design”. In addition, “experience design” and “service design” will play their roles in future social consumption upgrades, just like the “enzyme” generates various productivity combinations, and from the root up, brings in huge changes to consumption values. In a more amalgamated social environment we call the role of innovative design “value design”. This guides and drives mature total solutions, based on future scenario fusion, man-machine interaction and the construction of new synergies and communication relations. In the future development of industrial “Smart IoT”, these total solutions require more perfect fusion and mutual promotion of science and technology and the humanities and arts.

## Does Lenovo have so-called “black technology” products? Have the products awarded in the “Smart Ecological High School Innovation Competition” jointly conducted with high schools actually been hatched? Can these become mature commodities for sale?

The use of a single technology makes it hard to directly generate rich experience and added value,

# IS EXPANDING LENOVO’S EXCELLENT DATA COMPUTATION INTO THE WIDER SOCIETY



so with respect to IAR combinations, we focused on short-term and long-term possibilities. Bounteous talent and concepts were discovered in the Smart Ecological High School Innovation Competition and are now being turned into products. Some concepts have been used in our products, not just for added competitiveness, but also for better user value.

#### In Lenovo's response to the "SlOT 2.0 Era", what is the Innovative Design Center tasked to do?

In overall terms, "black technology" is far from our goal. We target to offer better and higher quality experiences and create new value for users, enterprises and society. This is not based on technical innovation alone, but on the combined integration of social and human trends, consumption culture, technical industrial transformation maturity and psychological needs. So in the SlOT 2.0 era, the task of the energization center is to generate better and creative solutions to the delivery of "products + services".

As for the strategic implementation of SlOT 2.0 in the future, we need to combine Lenovo's operating power with the demands to particular scenarios, to achieve maximum efficiency. "The future is an efficient bonus era". I strongly recognize such definition and description of our future in the forward-looking perspective of generating comprehensive value. Future technology will be better amalgamated to serve our lives and work, enhance resource utilization efficiency in all respects and create greater value with fewer resources.

#### How can Lenovo, as China's traditional PC leader, win over a new generation of consumers with its smart offerings in IoT times?

Lenovo will focus more on users and seek to understand gain insight into, define and satisfy their changing demands and needs. This cohort of young users is very active in thinking, and they have made their demands clear in self-positioning. Their environment offers clear fingerprints of their consumption behavior. This group is now a deeply eager "consumption symbiont" for excellent products that combine new culture and technology and have a unique understanding of Chinese intelligence and aesthetics. They are enthusiastic about "self-cognitive original works" that accompany them on their path to maturity. Emotional focus and recognition have the largest potential to help enterprises develop in the future. At the same time, based on the former, we should express ourselves better, grow and transform in such a way as to minimize brand positioning transfer costs, and realize optimal disintegration. This requires preparing well in terms of "corporate psychology" and "corporate mechanisms". Simply, we need to better understand the cultural soils were are embedding our ideas in, and stay curious to emerging consumption groups,

addressing them with agility and a lightening touch.

#### Which fields does Lenovo Design Center focus on these days?

Recently, we have begun to focus more on medical IoT. Across the world, medical care is going through a critical transformation stage, from the "family medical treatment" of the past to "democratic medical treatment", viz, the users will participate in self-health management and disease treatment in a better and active manner through new technology and new service solutions. The hospital used to be an in-hospital system, but in the future, it will be based on medical IoT. We will see the development of a three-dimensional health management and disease treatment network combining in-hospital systems and out-hospital systems. This network features several scenarios and dimensions as well as multiple roles, and will break through today's regional treatment restrictions, making global multi-expert synergized diagnosis and treatment possible. "Medical IoT" will be reflected in the transformation of individual health management from spotted to linear. Behind the focus on medical IoT is an interest in life transfer, and the improvement of quality of living.

Speaking of industrial and social scope, medical IoT will bring in immeasurable value to our country and society. Such value derives from an amalgamation realized through information. Synergized innovation can generate efficient social medical welfare solutions, as well as efficient high-quality medical treatment plans. ■

#### 联想这些年在创新设计驱动方面经历了哪些重要阶段?

联想的设计经历了萌芽期、学习期、成长期和成熟期四个主要发展阶段。萌芽期从1996年开始,在2000年到2005年前后,进入学习期,经历了PC市场的蓬勃及拓展,并购IBM,成为一家国际化的中国企业。2005到2010年是我们的成长期,通过跨界融合、宏观主体的参与和思考,我们的专业能力得到质的飞跃和成长。2010年至今,联想设计在围绕解决问题和创造价值的过程中,进一步发展出一套独特的、国际领先水平的设计机制和设计体系,保证了设计团队、设计能力、设计理论以及设计方法和思维的不断演进。构架企业组织架构的创新力,我们可以称为"组织设计力"。对于企业来讲,它正在成为一个新课题和更加重要的核心竞争力。在2013年获得中国唯一的"红点设计年度团队奖"后,我们就一直在探索,如何在企业组织生产力的架构思考上,尝试和实现更好的"组织设计力",这将是未来驱动企业由内而外实现品牌新活力的一个重要可能性。

#### 请介绍一下联想创新设计中心及其工作内容。

今天的联想设计团队已经发展成为一个多维的平台组织,

# 产业智能物联网的强大势能,正在把联想自身优秀的数据运算力拓展到更加广阔的社会方方面面。运算力的价值纽带,把数据入口能力、数据存储能力、数据分析能力以及数据挖掘能力紧密结合在一起

设计团队一方面在各个BU经营单元里支持和巩固现有业务,另一方面聚焦于思考、创造新商业价值,开拓新业务模式,以"敏捷创新"的全功能型组织,在SET (Social trend, Economy trend, Technology trend)向SDT (Social trend, Digital trend, Technology trend)的转变过程中,发挥前瞻"右脑思维"的重要牵引(PULL)和推动(PUSH)价值。我们把这种系统化促进产业融合、保障企业品牌定位迁徙顺畅的新组织定位,定名为"赋能中心",即把企业自身建设的核心能力、战略分享给外界,更重要的是把外界好的产业资源和能力,推动、引入联想内部,和联想的长板及发展需求相结合,孵化和孕育新的成长点和新的服务价值、新的体验内容价值。

在过去的发展过程中,联想的设计驱动是从产品、人、组织、产业、社会这几个维度,不断组合,交叉驱动,让联想的创

新经营更加有效。职责上来讲,我们一直是一个跨界多专业协同团队,不同专业之间紧密协同,就能有效触发可能的创新机会,同时又保证了敏锐的风险触感。单从传统的产品维度来讲,我们最开始的中早期工作内容,就基本包括了ID设计、平面设计、交互设计、新材料、新工艺和机构设计、机电一体化设计等。企业的设计创新组织,在组织责任的立意点上,是一个围绕着"解决问题",以最优化的资源构建的多专业协同组织。

以物联网、云计算/边缘计算、大数据/人工智能等技术为代表的智能化变革,正在引发第四次工业革命。联想如何在这第四次工业革命的潮头立于不败之地?创新设计能够起到怎样的作用?



今天,一方面消费端的“场景需求”和“服务需求”在不断发生变化,同时在供给端和产业端也正在发生影响更加深远的变化。未来,在“智慧城市”的区域框架下,产业“智能物联网”的蓬勃发展,新的链接技术、新的链接能力,将使我们为解决复杂跨场景、跨领域的问题变为可能,也正是这种可能性,为我们打开了高效解决城市、社会发展问题的大门。

产业“智能物联网”的强大势能,正在把联想自身优秀的数据运算力拓展到更加广阔的社会方方面面。运算力的价值纽带,把“数据入口能力”“数据存储能力”“数据分析能力”以及“数据挖掘能力”紧密结合在一起。从数字化生存的角度,在以人为消费核心的社会架构存在下,设备创新仍将是打开、拓展数据入口的重要手段,个体、组织、产业,通过各种创新的设备数据入口,得以获取更加丰富的产业和生活数据,这是构建数据大厦的地基,有了这个基础,才有可能对数据进行更好的存储以及分析挖掘,也才能根据我们面对所发生的现有体验,透过“表层数据”,以更加有效的“深层数据”关联分析和创新挖掘,去更好地思考和改变未来,并形成更加有效率且务实的整体场景解决方案。

在2C领域,“注意力经济”成为各个企业关注的新维度,简单讲也就是如何通过更好的体验设计来吸引客户,来构建更好的体验消费闭环。我们自身正在实践的,如联想新消费无人店。未来“广义设计创新”将是更好的“场景洞察”和“服务设计”创新方案实现的保证。另一个方面,“体验设计”“服务设计”会在未来的社会消费升级发展中起到关键的转化作用,它会像酶一样,催生出各种可能的生产力组合,甚至从根源上带来消费价值观念的巨变。在一个更加融合的未来社会环境里,创新设计所能起到的作用,我们称为“价值设计”。“价值设计”是以未来的场景融合、人机互动、构建新协同新沟通关系为基础,来引导和推动更加成熟的综合解决方案的诞生。在未来的产业“智能物联网”发展中,这些更成熟的综合解决方案需要的是“科学技术”和“人文艺术”更加完美地融合和互相促进。

**联想有没有传说中的“黑科技”产品?与高校联办的“智能生态高校创新大赛”的获奖作品是否得到了孵化?能否成为成熟的商品上市销售?**

单一的科技很难直接地产生丰富的体验和增值,所以未来在产学研结合方面,我们会更加看重短期和长期的结合。我们在与高校联办的“智能生态高校创新大赛”中看到了很多优秀的人才和想法,这些正在我们今天的产品中有所转化,有的想法已经融合到我们的产品中,为我们的产品带来新竞争力的同时,也为用户带来了更好的价值。

**联想针对“智能物联SIoT 2.0时代”的战略中,创新设计中心的任务是什么?**

综合来讲,“黑科技”并不是我们的目的,能够为用户、企业、社会提供更好、更优质的体验方案,创造新价值才是。这背后绝对不仅仅是技术创新这一个维度,而是包括了对社会人文趋势、消费文化、技术产业转化成熟度、心理需求等多方面的结合创造。所以在针对物联网SIoT 2.0时代,赋能中心的任务就是能够更好地在“产品+服务”的创新和交付上不断推动产生好的、创造性的解决方案。

在未来智能物联SIoT 2.0时代的战略实施,我们需要把联想的运算力和各个行业、各个生活场景的需求相结合,产生更高的效率。“未来是一个效率红利的时代”,我非常认同从未来产生综合价值的前瞻角度,定义和描述我们的未来,未来技术将更好地融合服务于我们的生活和工作,全方位地提高资源利用效率,用更少的资源为人创造更大的价值。

**作为传统PC行业领军企业,联想如何在物联网时代众多新兴智能产品崛起的市场环境中赢得新生代消费者的青睐?**

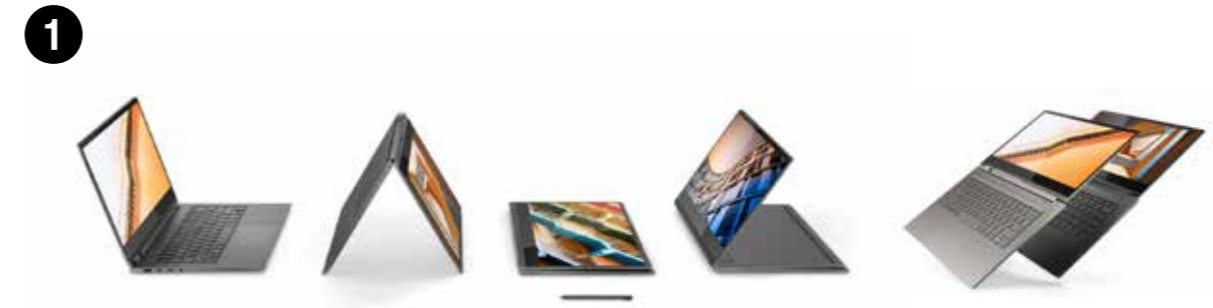
未来联想会更聚焦于以用户为核心,去更好地理解、洞察、定义和满足用户群体不断变化、不断衍生的新需求。现在的年轻用户思维非常活跃,他们有对自我定位新的需求,他们的成长环境决定了他们在消费行为上的清晰指纹。这个群体对结合了新文化、新技术,有独特中国智慧和美学理解的优秀产品,怀着深深渴望的“消费共生体”,他们对基于陪伴成长的“自我认知类原创”将充满了热情。从这个方面讲,情感关注和认同的驱动力是未来企业发展最大的势能。同时,基于前者,我们要更好地进行“自我迭代”,也就是在快速的企业成长过程中完成不断的成长和转型,尽可能减少品牌定位的转移成本,实现最优的蜕变过程。这需要“企业心理”和“企业机体”做好充分的准备。简单来讲,我们需要更好地理解文化原生土壤,满怀好奇心,以敏锐视角和触感关注新兴消费群体。

**联想设计中心最近正在关注的领域?**

最近比较关注的是“医疗物联网”。在全球范围内,医疗大健康行业正在经历一个世界性的关键转变阶段,从过去“家长式医疗”向“民主式医疗”过渡,也就是用户正通过新技术、新服务方案的可能,更好、更主动地参与到自我健康管理和疾病治疗里来。医院以前是一个院内系统,而未来基于“医疗物联网”,医疗大健康将成为一个院内系统和院外系统相互结合的立体的健康管理和疾病治疗网络。这个网络将具有多场景、多维度、多角色的特点,将跨越今天地域性诊疗的局限,全球性多专家协同诊疗将变成可能。“医疗物联网”还将深刻地体现在将每个人的健康管理由点状变成一个线性的过程。关注“医疗物联网”,其实背后体现的是对于人的生活内容变迁的兴趣,对人的生活品质和提升的关注。

从产业范畴和社会范畴来讲,“医疗物联网”将为国家和社会带来不可估量的巨大综合价值。这个价值来源于我们能够更好地通过信息手段的融合,通过协同创新,带来更高效的社会医疗福利解决方案,以及更加高效、高质量的医疗治疗方案。■

# Lenovo: Innovations



**1** YOGA is a category based on an integrated software and hardware innovation. This offers ease of use in different scenarios, and brings important opportunities to enter the North American market. YOGA作为一个新品类,基于软硬件一体化创新,它带来的是用户在不同场景中的易用性等价值,也带来了商业上进入北美市场的重要机遇。



**3** IoT technology is the new support point that builds a “smart lifestyle”, which, in combination with a consistent “experience fingerprint” form an interlinked experience in individual sense channels. 物联网技术是营造“智慧生活方式”的新支点,它与系统一致的“体验指纹”结合,在各个感官通道形成关联体验。



**4** The best in class TYPE C size and volume not only focus on user mobile experience, but also effectively integrate market-leading products reached by industrial resources. 最佳的TYPE C尺寸和体量,不仅关注使用者的移动体验,更是有效整合了产业资源所达到的市场领先产品。



**2** THINKPAD is a case of continuous growth and brand feature enhancement. Based on strengthening the stable and reliable DNA through technology, the sustainable added value of the M&A strategy is realized. THINKPAD是品牌持续成长和特性加强的典型案例。在技术不断强化其稳定、可靠的DNA上,实现并购战略的持续增值。



**5** The rapid iteration and evolution of mobile products determines their leading periodicity in the market. By clarifying this rule, we gain insight into how commercial operations and competition strategies work. 移动产品的快速迭代和进化,注定了其市场领先的周期性。认清这个规律,就能深刻洞察商业运营和竞争战略的规律。

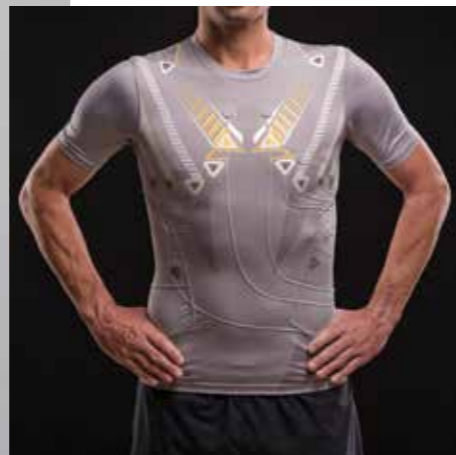




6

The first 12 lead ECG in the world can be said to be a new species. The technical and service plan is generated by way of the dual engine of experience and service oriented design.

世界第一款12导联ECG(心电衣), 作为“新物种”, 其技术和方案的双实现, 是“体验服务型设计”的双引擎。



8

The 2008 torch lit up a cohesive force of culture and country! It was the creativity extension of the platform developed with a humanistic spirit. 2008火炬——点燃的是文化、民族的凝聚力!是在宏大人文精神平台上的创造力舒展。

7



The design language of a product is just like a language used for communications: resonant only when facing the right audience. Video games display their distinct personalities on the battlefield. 产品的设计语言就像一门真正沟通的语言, 讲给对的受众, 才有共鸣。游戏本就要把鲜亮的个性, 溢彩在战斗的夜晚。



9

The Chapel Torre Girona Church, Barcelona, Spain. The historic site of MareNostrum 4, one of Lenovo's super computers. This super computer was ranked second in Europe, and eleventh in the world in 2017. Now, it ranks world 25th. This is a perfect encounter of science and art.

西班牙巴塞罗那Chapel Torre Girona教堂, 联想超级计算机之一MareNostrum 4就建在这座充满文化历史的美丽建筑里。这个超级计算机中心的运算能力在2017年曾排名欧洲第二、全球第11, 目前排名全球第25位。这是“科学技术”+“人文艺术”的一次完美邂逅。

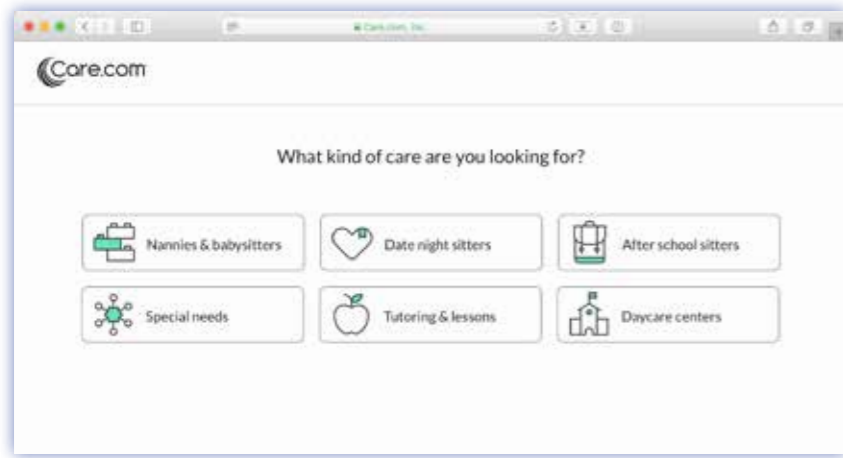
10

New light interaction interface, new induction technology and new IoT solutions redefine innovation in the new unmanned retail store scenario.

用新的光交互界面、新的感应技术和物联网技术解决方案相结合, 重新定义新零售无人门店的场景创新。







# CARE.COM

The global care economy is being driven by sweeping demographic shifts: a Millennial generation that is starting families; a 65+ population that, in the U.S., is projected to nearly double in the next 25 years; and a Sandwich Generation of people caring for both children and seniors. In the coming decades, care jobs are projected to be one of the fastest growing job sectors in the world.

Issues linked to the care sector, including its job creation potential and the need to address major gender imbalances, were an important part of discussions at the G20 Labour and Employment Minister's meeting, held in Matsuyama, Ehime, Japan on September 1st, 2nd 2019. Provision of long-term care is a major issue in G20 countries that face a rapidly ageing population.

"The care economy can create millions of decent jobs. Society needs these decent jobs to care for the increasing numbers of seniors and by creating them we also improve the quality of care provided" said Guy Ryder, Director General of ILO.

Sheila Lirio Marcelo founded Care.com in 2006 after her personal challenges as a young working mother finding care for two small children and ailing parents shed a spotlight on the massive care needs of families everywhere. Today she is Chairwoman & CEO and the company is the world's largest online destination for finding and managing family care, serving more than 34.1 million members in over 20 countries.

Sheila, along with co-founders Dave Krupinski (Chief Technology Officer), Donna Levin and Zenobia Mochhala, founded the company with a conviction that human-centered technology and innovation can address real world social challenges—by enabling access to more efficient and affordable family care, and by facilitating quality jobs for the care workforce.

Care.com was founded on the understanding that quality family care is both a fundamental human need and a key driver of economic growth and empowerment. As stated on care.com corporate website: "When children receive quality care in their critical formative years, they are on a path to achievement and success. Women disproportionately shoulder caregiving responsibilities, but when they have supports in place that enable them to work, our economy grows. When seniors receive quality care in their homes, healthcare costs decline with fewer hospital stays. When we have a strong caregiving workforce, all these things are possible". ■

## THE CARE ECONOMY CAN CREATE MILLIONS OF DECENT JOBS

全球人口变化正驱动着全球护理经济的发展:千禧一代开始组建家庭;在美国,预计65岁以上的人口在未来25年内将增加近一倍;上有老下有小的“三明治一代”也开始增多。未来几十年里,护理工作预计将成为世界上增长最快的行业之一。

2019年9月1日至2日,在日本爱媛县松山市举行的G20劳工就业部长会议上,与护理领域有关的问题——包括创造就业机会、解决重大性别失衡问题的必要性——是会议的重要组成部分。在人口迅速老龄化的二十国集团国家,能否提供长期护理是一个重大问题。

### 护理经济可以提供数百万份体面的工作

“护理经济可以提供数百万份体面的工作。社会需要这些体面的工作来照顾越来越多的老年人,同时通过提供这些工作,我们也提高了护理质量,”国际劳工组织总干事盖·莱德说道。

希拉·里奥·马塞洛还是一名年轻的在职母亲时,深感寻找护工帮助照顾两个幼儿和患病父母实在不易,于是在2006年她创立了Care.com,这让人们关注到世界各地家庭的巨大的护理需求。如今她已是该公司的董事长兼首席执行官,该公司已成为世界上最大的寻找和管理家庭护理的在线网站,为20多个国家的3410万会员提供服务。

与希拉一同创立公司的还有戴夫·克鲁宾斯基(首席技术官)、唐娜·莱文和塞诺比亚·穆克哈拉。他们深信以人为本的技术和创新可以应对现实世界的社会挑战——通过让人们获得更高效、更实惠的家庭护理服务,以及为护理人员提供高质量的工作机会。

Care.com的建立基于这样一种认识:优质的家庭护理既是人类的基本需要,也是经济增长和赋权的关键推动力。正如Care.com公司网站上所述:“当儿童在关键的成长阶段得到高质量的护理时,他们便走上了成功的道路。女性过度承担着护理的责任,但只要适当的护理支持使她们能够工作,我们的经济就会增长。当老年人在家就能得到优质护理时,住院次数和医疗费用就会减少。当我们拥有一支强大的护理人员队伍时,这些都有可能实现。” ■



**Sheila Lirio Marcelo**  
Founder, Chairwoman & CEO  
**希拉·里奥·马塞洛**  
Care.com创始人、  
董事长兼首席执行官

# AIRBNB

## SOCIAL IMPACT EXPERIENCES

In November 2016 Airbnb Inc., the online marketplace for hospitality services founded in 2008, launched “Experiences” in line with its plan to become a one-stop shop for the next generation of travelers. According to Airbnb, an Experience is “an activity designed and led by inspiring locals. [...] Anyone can share a hobby, skill, or expertise without needing an extra room”.

Airbnb also offers “Social Impact Experiences”, run by local non-profits, on which the group waives its usual 20% fee, and 100% of the transaction is paid to the charity, with payment usually processed 24 hours after the experience has concluded.

“We heard from hosts and guests, on both sides, that they wanted to be able to find more ways to contribute to the communities where they live, or where they stay as a guest”, Airbnb’s Head of Social Impact, Kim Rubey, told Fast Company in December 2016. “There’s a strong universe of travelers who do want to have that ability to give back and benefit local organizations”.

One key driver to achieve SDG 8 (Decent work and Economic Growth), as stated in the sub-goals section of the UN Website, is “to devise and implement policies to promote sustainable tourism that creates jobs and promotes local culture and products”. Airbnb is surely not the only company tapping into the socially responsible tourism trend, but its success and corporate influence probably make it the most powerful. ■

# 爱彼迎

## 社会公益体验

2016年11月,成立于2008年的房屋租赁在线服务公司爱彼迎推出了体验业务,旨在为下一代旅行者提供一站式服务。据爱彼迎称,体验业务是“由富有激情的当地人设计和指引的活动……无需多余的空间,任何人都可以分享自己的爱好、技能或专业知识。”

爱彼迎还提供由本地非营利组织运营的“社会公益体验”,且不会针对此类体验收取通常的20%的服务费。社会公益收入通常会在体验结束后24小时内,全额支付给非营利组织。

“我们从房东和房客两方面都得到反馈,双方都希望能够找到更多的途径,来服务他们所居住的或作为客人短暂居留的社区,”爱彼迎社会公益体验业务的主管金·鲁比2016年12月告诉《快公司》杂志。“有很多旅行者都希望能够回馈社会,造福当地组织。”

正如联合国网站的次目标部分所述,实现

可持续发展目标8(体面工作和经济增长)的一个关键驱动因素,是“制定和执行促进可持续旅游的政策,以创造就业机会,推广当地文化和产品”。爱彼迎肯定不是唯一一家顺应社会负责任旅游趋势的公司,但其成功和企业影响力可能会使它成为在这方面最有影响力的公司。

可持续旅游的概念存在一些困难的方面和可能的缺陷。首先从负责任的旅游这一定义出发,它本身就是很难确定的。一些人称之为“生态旅游”,重点关注保护自然环境;另一些人称之为“伦理旅游”,重点关注伦理问题和主要受益者,尤其是在贫困地区。

另一个关键的潜在陷阱牵涉到当地受益者的实际影响力,以及促使旅行者参与社会责任体验的不完全利他意图。“消费者参加公益旅行的主要原因不是为了做好事,而是为了能够谈论和分享,”纽约大学Tisch酒店业

和旅游业中心副主任克里斯汀·拉莫鲁在接受《快公司》杂志采访时说道。拉莫鲁曾写过一篇关于公益旅行的论文,非常了解其潜在陷阱。

“即使旅行者的动机并不总是像我们希望的那样纯粹,但只要当地慈善机构能获得实质性的利益,那动机还重要吗?”这是拉莫鲁对爱彼迎这项业务最大的希望。

自业务发布以来,爱彼迎不断邀请慈善机构通过其平台参加“社会公益体验”,这种体验也成为慈善机构筹集资金的一种新途径。

截至2019年3月,据招募新闻平台“英国筹款”报道,全球超过900个慈善和非营利组织通过爱彼迎参加了社会公益体验,并因此筹得了资金。爱彼迎称,体验业务给“一些组织带来了长期捐助者、志愿者和组织大使”。 ■

Another crucial potential pitfall is connected to the actual impact on the local beneficiaries, and the not-so altruistic intent that pushes the traveller to engage in a socially responsible experience. “The main reason consumers take volunteer trips is less about doing good and more about “being able to talk about it, to share” says to Fast Company Kristin Lamoureux, associate dean of NYU’s Tisch Center for Hospitality and Tourism, who wrote her dissertation on volunteer tourism and knows its potential pitfalls well.

“But even if travelers’ motives aren’t always as pure as we might hope, does it even matter, as long as local charities materially benefit?” That’s Lamoureux’s greatest hope for the Airbnb program.

Since launching the program Airbnb continuously involves charities to offer ‘social impact experiences’ through its platform, and the experiences have also become a new way for charities to raise funds.

By March 2019, as the fundraising news platform UKFundraising reports, more than 900 charity and nonprofit organisations around the world have created social impact experiences through Airbnb, and raised funds as a result. Some report that experiences have resulted in “long-term donors, volunteers, and ambassadors for an organisation”, according to Airbnb.



## 2019 “China Now: Silk Road Rediscovery Tour of Beijing Upon the 70th Anniversary of the PRC”

### 2019“丝路大V北京行”： 向世界展示一个全新的北京

On the morning of August 20th 2019, the launch ceremony of the 2019 “China Now: Silk Road Rediscovery Tour of Beijing upon the 70th Anniversary of the PRC” was held at Tongxing Square, at the site of the Beijing Expo 2019. Participants from 13 countries along the Belt and Road started their journey and interviews in Yanqing. The tour aimed to demonstrate Beijing’s vitality and convey China’s image and voice to the world.

This tour, from August 20th-23rd, was hosted by the Information Office of the Beijing Municipality, and supported by the United Nations Educational, Scientific and Cultural Organization (UNESCO).

Hans d’Orville, Chief Advisor of the International Center for Creativity and Sustainable Development under the auspices of UNESCO, delivered a speech as representative of the participants, in which he said that the Belt and Road Initiative emphasizes the importance of international cooperation, and that this event is the best proof of joint construction beyond the geological constraints for a cooperation relationship. The host city Beijing is not only the political capital of the People’s Republic of China, it is also a unique venue which can highlight the significance of biodiversity 70 years after the founding of the PRC and years into its

pursuit of sustainable development goals due to be met in 2030. In 2012, Beijing was designated by UNESCO as Creative City of Design and has since hosted two global summits of the UNESCO Creative Cities Network (UCCN), bringing together more than 70 city representatives from around the world to highlight the power of creativity as a resource in its own right. This event will also have a tremendous impact on the Belt and Road Initiative (BRI), as many network cities are located in BRI countries. Innovation, the business of ideas, is increasingly seen as the key to future societal prosperity and business success. The cultural and historic power of Beijing is embodied in many monuments inscribed in UNESCO’s World Heritage List.

Beijing’s rich history and culture was on full view, as well as its leading role in innovation and technology. As a UNESCO Design Capital, Beijing’s cultural and creative sector has developed rapidly, with heritage sites turned into cultural hubs such as 798 Art District, and 751D-Park, Beijing’s fashion design square. After visiting these and Zhongguancun, Beijing’s high tech zone, invitees were clearly impressed with Beijing’s level of innovation and vitality. At the Zhongguancun Science Park Exhibition Center, they saw how big data, AI, augmented reality and other innovations embraced 5G and the fourth industrial revolution, and gained an appreciation of China’s achievements in these areas. Zhongguancun software park gave participants an appreciation of the scale

of achievement. Gunnedh Mtorida, honorary chairman of the world design organization said that Kenya was also building a science and technology park but it was still in its infancy. Kenya looked forward to strengthening its exchanges with China, learning from Zhongguancun’s experience and promoting its own local development initiatives.

Beijing’s science and technology prowess is also reflected in its preparations for the 2022 Winter Olympics. The construction of the new stadium blends technology and aesthetics to stunning effect.



The launching ceremony of 2019 “China Now: Silk Road Rediscovery Tour of Beijing Upon the 70th Anniversary of the PRC” on August 20, 2019 [photo by Ruan Hongjun]  
2019年8月20日, 2019“看今朝·新中国成立70年 丝路大V北京行”活动正式启动。摄影:阮红军





A corner of Wild Duck Lake National Wetland Park (Photo by Hariandi Hafid from Indonesia)  
野鸭湖国家湿地公园一角。摄影：哈里安迪·哈非德（印度尼西亚）

The Speed Skating stadium design features a double-glazed curved glass structure and a number energy consumption reducing devices as well as advanced cooling technology through CO2 refrigeration. The ski jump platform is designed to gracefully blend in the retired Shougang Group industrial cooling tower. The Bird's Nest stadium and Olympic tower were groundbreaking when built prior to 2008.

China is keen to carry out a “green, shared, open, and clean” winter Olympics. Of the 13 venues, 11 are old 2008 Olympic Games sites. The former Shougang Group steel plant is being transformed for the occasion. The 2022 Winter Olympics will be another occasion to underline the capacity of the city and country to greatly benefit from the 2008 experience more than a decade later and to help inscribe

Beijing into the annals of Olympic history. The Beijing Winter Olympics promises to demonstrate how winter Olympics can be staged in the vicinity of a megacity and how experiences from other cities and countries can come into play.

The nature and culture of this city was something our guests could not wait to experience. On the first day, they enjoyed the Beijing World Horticultural Exposition, with exhibitions from all over the world. This impressed upon them the need to respect nature and protect ecological diversity. In the China Pavilion, they learned about China's horticultural industry, the construction of ecological civilization and the exploration of scientific research institutions in 31 provinces, autonomous regions and municipalities across the country. On the 22nd August, guests experienced a series of interactive activities on Ganjiakou street, Haidian district, including traditional painting, handicrafts and tasting sessions with local residents, experiencing Beijing's rich history, culture and heritage up close.



Xu Hejian, Deputy Director of Publicity Department of Beijing Municipal Party Committee and Director of Information Office of People's Government of Beijing Municipality was addressing a speech (photo by Ruan Hongjun)  
北京市委宣传部副部长、北京市人民政府新闻办公室主任徐和建致辞。摄影：阮红军

Our guests have gained an in-depth understanding of Beijing's achievements in international exchange, ecological construction, livelihood services, cultural heritage and innovation, and come to appreciate the ecological side of the city, conveying concepts of green development, cultural protection and development of humanity. The science and technology + creative vitality of Beijing was on full view in the city of the double Olympic Games.

Since being designated “Design Capital” by UNESCO in 2012, Beijing hosted two UNESCO World Summits of Creative Cities, showcasing its creativity as a precious resource. The 3rd Beijing Summit is expected to be held next year, where dozens of city mayors and senior representatives from all continents will gather in the city. Beijing will prove its position as the birthplace of innovation and development. China will also continue to coordinate the development of knowledge sharing, innovation policies and institutions, and the digitalization process by promoting creativity. This is also the core challenge facing the world today. ■



Self-balancing two-wheeled electric vehicle on display at the Exhibition Center of Zhong-guancun National Independent Innovation Demonstration Zone  
(Photo by Hariandi Hafid from Indonesia)  
中关村国家自主创新示范区展示中心展出的自平衡两轮电动汽车。  
摄影：哈里安迪·哈非德（印度尼西亚）



Mugendi M'Rithaa, former President of the World Design Organization, joined local class at citizen activity center of Ganjiakou street.  
世界设计组织荣誉主席穆甘迪·姆托瑞达在甘家口社区活动中心参与社区活动。



751D-Park Beijing Fashion Design Square (Photo by Hariandi Hafid from Indonesia)  
751D·PARK北京时尚设计广场。摄影：哈里安迪·哈非德（印度尼西亚）



2019年8月20日上午,2019“看今朝·新中国成立70年 丝路大V北京行”启动仪式在北京世园会同行广场举行。来自柬埔寨、加拿大、印度尼西亚、伊朗、德国、肯尼亚、韩国、缅甸、巴基斯坦、俄罗斯、塞尔维亚、泰国、土耳其等13个“一带一路”沿线国家的丝路大V,以延庆为起点,踏上向世界展示北京形象、传递中国声音的参访之旅。

此次活动由北京市人民政府新闻办公室主办,联合国教科文组织国际创意与可持续发展中心支持,活动从8月20日启动持续到8月23日。

联合国教科文组织国际创意与可持续发展中心首席顾问汉斯·道维勒在启动仪式上发言。他表示,“一带一路”倡议强调了国际合作的重要性,而本次活动也是超越地理边界、共建合作关系的最佳证明。他充分肯定了近年来中国及北京为实现2030年可持续发展目标所做出的努力,以及北京作为联合国教科文组织创意城市网络“设计之都”,对创意城市网络中很多属于“一带一路”沿线及相关国家的城市的巨大影响作用。他说:“创新越来越被视为社会经济繁荣发展的关键,但创新必须建立在厚重的城市历史文化和丰富的艺术灵感的基础上。北京拥有众多被联合国教科文组织列为世界遗产名录的古迹,这一点就很好地体现了北京历史文化的博大精深。”

丝路大V在本次活动期间,既体验到了北京厚重的历史文化,亦目睹了创意和科技在城市新产业中的引领作用。作为联合国教科文组织创意城市网络“设计之都”,北京的文化创意产业发展势头迅猛,涌现出了一批利用工业遗产转型建设文创园的典型案例,比如798艺术区、751D·Park北京时尚设计广场。在参观了这些文创基地和中关村之后,一行大V纷纷对北京通过“科技+创意”所释放的创新创业活力表示赞叹。在中关村科技园展览中心,他们看到了大数据、人工智能、增强现实和其他技术创新是如何拥抱5G和第四次工业革命,见识了中国在上述领域的卓越成就。在中关村软件园,他们通过园区沙盘直观地感受到园区可观的规模。来自肯尼亚的世界设计组织荣誉主席穆甘迪·姆托瑞达表示,肯尼亚也在建设科技园区,目前尚处于起步阶段,非常期待能和中国加强交流,学习北京中关村的先进经验,带动当地的发展。

北京的科技感同样体现在正在筹备的2022年冬季奥运会场馆上。新场馆的建设将科技与美学完美交融,令大V叹为观止。国家速滑馆滑冰设计有双层玻璃曲面玻璃结构,还有一些其他的新颖功能,通过二氧化碳制



Three ICCSD advisory committee members who participated the event, Hans d'Orville (left), Mehri Madarshahi (middle) and Mugendi M'Rithaa (right) took a group photo at China Pavilion of Beijing International Horticultural Exhibition. (photo by Li Shenglan)  
创意中心三位参与该活动的咨询委员会委员汉斯·道维勒(左)、梅里·马达沙希(中)与穆甘迪·姆托瑞达(右)在世园会中国馆合影。摄影:李胜兰

冷,显著降低能耗并确保最先进的冷却技术应用。滑雪大跳台以前瞻性的设计方式,优雅地融入退役的首钢工业冷却塔。“鸟巢”国家体育场及奥林匹克塔向人们展示了具有开创性及前卫特色的建筑构造。这些成果不仅再一次展示了中国具备举办国际级赛事的能力,更是2022北京冬奥会“绿色、共享、开放、廉洁”的办奥理念的写照。2022年冬奥会北京赛区的13个冬奥场馆中,有11个使用了2008年奥运会遗产,钢铁企业首钢集团老厂区也正在被改造成北京冬奥组委办



The Peking Opera performers on stage (Photo by Hariandi Hafid from Indonesia)  
京剧演员在台上表演。摄影:哈里安迪·哈非德(印度尼西亚)

公区及比赛场地。大V们也非常钦佩地了解到这些奥运会的基础设施在会后都将留存,并转变为北京居民及游客的冬季运动所用。

这座城市的自然和文化也是众多大V迫不及待希望体验的。活动启动当天在北京世界园艺博览会的展厅里,他们欣赏了来自世界各地的园艺展览,也再次感受到各国在尊重自然、保护生态多样性及美好事物方面的必要性。在中国馆内,他们详细了解了中国31个省区市园艺产业、生态文明建设以及科研院校探索的成果,也对场馆内充满科技感的设计与装置赞叹不已。22日,嘉宾们又在北京市海淀区甘家口街道体验了一系列极具互动性的活动,与辖区居民们一起学国画、做手工、品香薰,切身感受到了北京丰厚的历史、文化和遗产。

本次活动让丝路大V深入了解了北京在国际交往、生态建设、民生服务、文化传承与创新等方面所取得的成就,让他们认识了一个传递绿色发展理念的生态北京、一个文化保护与发展并重的人文北京、一个科技+创意的活力北京,以及一个节俭办赛的“双奥之城”。

自2012年被联合国教科文组织授予创意城市的“设计之都”以来,北京已经举办了两次联合国教科文组织创意城市北京峰会,集中展示了创意

作为一种资源的力量。第三届北京峰会预计于明年举行,届时来自世界各大洲的几十位城市市长和高级代表将聚集在这座城市。在不久的将来,北京将用事实证明,它是创新发展的发源地。中国也将继续通过促进提升创造力,从而协调发展知识共享、创新政策和制度以及数字化进程的能力。这也是目前全球面临的核心挑战。■



751 Locomotive Plaza is a name card of 751D·Park. The arrival of locomotive made by Tangshan Locomotive Factory in the early 1970s means that the old industrial factory of 751 has turned into a cultural and creative park. (Photo by Hariandi Hafid from Indonesia)  
751火车头广场是751的一张名片,由上世纪70年代初唐山机车制造厂制造的火车头的到来意味着原751厂这个产业老厂向文化创意园区“华丽转身”。摄影:哈里安迪·哈非德(印度尼西亚)





对人类来说，日复一日的重复生活是不够的；我们需要超越、凌驾、逃避；我们需要意义、理解、解释；我们需要看到生活的全面模式。我们需要希望，需要能感触到未来。我们还需要自由（或者至少是自由的幻觉）去超越自身，不管是用望远镜、显微镜、不断发展的技术，还是用使我们可以穿越到其他世界、凌驾于周围环境的心理状态。

我们可能也会尝试放下拘谨，使彼此间更容易建立起联系；或者寻求某种强烈的情感，使我们对时间与死亡的意识变得更易承受。我们寻求从内在和外在束缚中解脱，寻求更强烈的此时此地之感，寻求我们所寄身之世的美与价值。

— 奥利弗·萨克斯

**To live on a day-to-day basis is insufficient for human beings; we need to transcend, transport, escape; we need meaning, understanding, and explanation; we need to see over-all patterns in our lives. We need hope, the sense of a future. And we need freedom (or, at least, the illusion of freedom) to get beyond ourselves, whether with telescopes and microscopes and our ever-burgeoning technology, or in states of mind that allow us to travel to other worlds, to rise above our immediate surroundings.**

**We may seek, too, a relaxing of inhibitions that makes it easier to bond with each other, or transports that make our consciousness of time and mortality easier to bear. We seek a holiday from our inner and outer restrictions, a more intense sense of the here and now, the beauty and value of the world we live in.**

— Oliver Sacks



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