

The 1st HCI and Digital Health Forum: Technologies and Business Opportunities between China and UK 第一届人机界面和数码医疗论 坛：技术和中英商业机会

[BETTER LIFE, MORE PSYCHOLOGY]

DR BIAO ZENG, ITALKTONE LAB

.....	3
Agenda	3
Time	3
Venue	3
Registration	3
Organisers	4
Media	4
Outcomes	4
1. Workshop.....	4
2. JediMind Competition	7
3. Article	8
Chairs	8
Sponsors	9
Event Partners	9
Contact	9
.....	10
会议手册.....	10
时间.....	10
地点.....	10
注册.....	10
主办方.....	11
发布渠道.....	11
会议成果.....	11
1. 分会	11
2. “绝代意念”竞赛	14
3. 会议文章	14
主席.....	15
赞助人.....	15
合作伙伴.....	15
联系人.....	16



Agenda

Time

9:00-17:00, Tuesday, 12th July, 2016 (GMT +1, Time in London, UK)

16:00-24:00, Tuesday, 12th July, 2016 (GMT +8, Time in Beijing, China)

Venue

- ❖ **Room PG30D, Poole House**, Talbot Campus, Bournemouth University, BH12 5BB
- ❖ Room 503, Building 5, No. 998, Wenyi West Road, Zhejiang Hangzhou Future Sci-tech City, Yuhang District, Hangzhou
- ❖ Floor 4, Building B, No. 72 Kunlun Road, Lucheng District, Wenzhou, China

Registration

1. Bournemouth Workshop £100 <http://hci2016.bcs.org/register/>

** The first 5 registrants, who must submit to the JediMind Competition or article by the deadline of midnight at 10th July, will received £50 discount for the registration fee.*

2. China online workshop: free access

Organisers

- ❖ iTalkTone Lab, Department of Psychology, Bournemouth University
- ❖ Newford Research Institute of Advanced Technology (NRIAT), China
- ❖ China-UK Innovation and Entrepreneurship Forum, China

Media

UK <https://italktone.wordpress.com/bci2016/>

China <http://www.nriat.com/italktone/>



@iTalkTone Lab



@伯恩脑电

Outcomes

1. Workshop

The workshop initially aims to review the current digital health technologies and explore their potentials in real world. EEG, eye-tracking and social assistive robot are three incentive technologies we are investigating. Relevant business models and investment opportunities between China and UK will be introduced as well. The academia, mainly from psychology, health and IT backgrounds will present their findings in communicative behaviours and demonstrate cutting edge technologies, which facilitate wide range of communication in diverse groups, e.g. aphasia, autism and aged people, and scenarios, e.g. Brain-computer interface (BCI).

In particular, a healthcare-driven HCI approach will be discoursed and developed. Advancement in HCI and even BCI has increasingly entered into our privacy. From the perspectives of economics, ethics and business, we will answer whether technology could bring more equality, inclusion and benefit for different groups. A concept of technology equity will be proposed and discussed in the workshop.

a. Motivation

Inspired by Fusion, the theme of HCI 2016, the proposed workshop would integrate research, business and health investment together. Digital health is the convergence of the digital and genomic revolutions with health, healthcare, living, and society. Digital health is empowering people to better track, manage, and improve their own and their family's health, to live better, more productive lives, and to improve society. It's also helping to reduce inefficiencies in healthcare delivery, improve access, reduce costs, increase quality, and make medicine more personalized and precise. Venture investment in digital health in 2014 reached \$4.1 billion, a 125% increase year-over-year. Remarkably, aggregate investing in digital health has surpassed that in traditional healthcare and medical devices for the same period of time. The current proposal is also an echo for the newly founded Digital Health Institute in Bournemouth University.

b. Topics

- ❖ Tendency and business models in China and UK digital healthcare market
- ❖ Tendency in Human-computer interface (HCI) and Brain-computer interfaces (BCI)
- ❖ Edge-cutting technologies in healthcare, especially EEG, eye-tracking and assistive technologies
- ❖ Cost-effectiveness analysis and innovation in digital health technologies
- ❖ Potential and future ethical issues in digital health technologies

c. Workshop Format (online broadcast in Wenzhou and Hangzhou, China)

Morning session: Technologies and Healthcare (Chair by Dr Biao Zeng)

0900 **Registration**

0925 **Introduction**

Dr Biao Zeng

0930 **Assessing meaning, usability and user experience: What eye tracking might and might not tell us in the healthcare context**

Prof Sine McDougall (Professor in Psychology, Bournemouth University)

- 1000** **Telehealth Services and Technologies: User Acceptance and Market Opportunities**
Dr Malcolm J. Fisk (Director, Telehealth Quality Group EEIG, De Montfort University)
- 1030** **ERP Components and the Application in Brain-computer Interface/**
Dr Xun He (Co-founder iTalkTone Lab, Bournemouth University)
- 1100** **qEEG and Neurofeedback in ADHD and Dyslexia**
Tony Steffert (co-founder of Society of Applied Neuroscience)
- 1130** **Panel Q&A**
- 1200** **5 Short Presentations**
- 1230** **Lunch**
- Afternoon session: Opportunities and Healthcare (Chair by Dr Lucy Lu)*
- 1330** **Digital Health in Bournemouth and Southwest England**
Dr Tamas Hickish (Consultant Medical Oncologist)
- 1400** **China's Embracing Innovation: The Cornerstone in Delivering Sustainable Development**
Prof Richard Li-Hua (Visiting Professor, Bournemouth University & President of CAMOT Academy, Cambridge)
- 1430** **Healthcare Export to China**
Andy Morley (CEO, New Level Health)
- 1500** **Demands of Digital Healthcare in China: Why China is NOT an Aged People Friendly Place?**
Dr Biao Zeng (Founder of iTalkTone Lab, Bournemouth University)
- 1530** **Panel Q&A**
- 1600** **5 Short Presentations**

d. Audience

For the British HCI 2016 conference, the audience and contributors are highlighted

- ❖ We're expecting around 200 registrants.
- ❖ Attendees are not just from the UK and Europe. Paper authors are also from North America, Africa, Middle East, Asia, and Australia.
- ❖ The academia / industry balance tends towards academics. It estimates this could be something like 7: 3.
- ❖ Companies represented by authors include Nokia Bell Labs, BBC, and Microsoft.

For our workshop, we estimate that 15 people are likely to attend this workshop in BU. The audience comes from three areas: R&D, industry and investment. Meanwhile we have a live streaming conference in China. All talks will be broadcasted mutually in Bournemouth and China. Our partner Newford Research Institute of Advanced Technology (NRIAT) and China-UK Innovation and Entrepreneurship Forum are responsible for running China session in Wenzhou and Hangzhou respectively. We expect the number of online audience will reach to 100.

2. JediMind Competition

JEDIMIND COMPETITION

MAY THE FORCE BE?

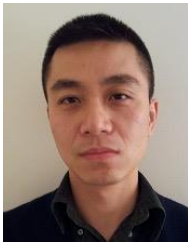
RULES

1. To give an idea or question about how to test and use brainwave, e.g.
 - May the FORCE be with you?*
 - I can control my doggy by my mind.*
2. To draft your test plan (no more than 200-word) to info@eeglife.com
3. To submit your plan no later than **midnight 10th July, 2016**.
4. To give two prizes (£100 each) to 2 winner
5. To test by iTalkTone Lab and tell you result in 3 months

3. Article

It is extremely an easy way to submit your articles to our workshop. You merely need to send no more than 500-word article to us. The deadline is **at the midnight 19th July, 2016**. Any commentary, business idea is short research report which is relevant to our topics is welcome. We will inform you whether your article is accepted or not with one week after the deadline. All accepted articles are edited into a workshop paper collection. Please contact Prof Hong shong@bournemouth.ac.uk

Chairs



Dr ZENG Biao bzeng@bournemouth.ac.uk
Director of iTalkTone Lab
Senior Research Fellow, Department of Psychology
Bournemouth University

Dr Biao Zeng is a psycholinguist and the founder of the iTalkTone Lab in Bournemouth University. His research areas cover language, communication and BCI. He uses behavioural experiments, EEG and eye-tracking in studying the processing of language. He also applies cost-effectiveness analysis into evaluating different intervention programmes. In addition, Dr Zeng has been widely involved in startup activities between China and UK. Through these activities, he develops HCI applications in healthcare and education.



Dr Zhenyu Wang. Zhenyu.wang@nriat.com
Director
Newford Research Institute of Advanced Technology (NRIAT), China

Dr Zhenyu Wang is an expert in computing science and big data. Graduating from Oxford University, Dr Zhenyu Wang has worked in research institutes and hedge funds in the UK. With the funding from Wenzhou government, Dr Wang founded the city's incubation and R&D centre, Newford Research Institute of Advanced Technology. The institute aims to facilitate to transform and upgrade local industrial structure. Healthcare is prioritised to be a potential strategic area. Meanwhile Dr Wang is the deputy head of local government Business Bureau and charging for research resources.

Sponsors

- ❖ EEG Life (China)
- ❖ Bournemouth University
- ❖ The British HCI 2016

Event Partners

- **UK**
 1. Bristol & West of England China Bureau, Bristol
 2. Beyond Laboratory, London
 3. Entrepreneurs Global
- **China**
 1. 浙江大学加州纳米学院
 2. 加恩资本

Contact

❖ UK

Prof Shanhu Hong shong@bournemouth.ac.uk

❖ China

Ms. Trista Huang trista.huang@nriat.com (Wenzhou)

Mr. Keqiang Li hitechforum_hz@126.com (Hangzhou)

Mr. Pan Ren pren@eeqlife.com (JediMind Competition)



会议手册

时间

2016 年 7 月 12 日星期二 上午 9 点-下午 5 点（英国时间）

2016 年 7 月 12 日星期二 下午 5 点-晚上 12 点（北京时间）

地点

1. 英国主会场：Room PG30D, Poole House, Talbot Campus, Bournemouth University, BH12 5BB 伯恩茅斯会场)
2. 杭州会场：杭州市余杭区文一西路 998 号 未来科技城 海创园 5 幢 503 室
3. 温州会场：温州市鹿城区昆仑路 72 号 B 幢四楼

注册

英国会场：<http://hci2016.bcs.org/register/> 注册费 100 镑

*前 5 名注册者，如果同时在 7 月 10 日之前提交“绝代意念”比赛计划或者会议文章，可以享受 50 英镑的注册费折扣。

中国在线会场：免费

主办方

1. 英国伯恩茅斯大学心理系 iTalkTone Lab（伯恩茅斯大学主会场）
2. 中国温州中津先进科技研究院 (温州会场)
3. 中英 Hitech 创新创业论坛（杭州会场）

发布渠道

英国 <https://italktone.wordpress.com/bci2016/>

中国 <http://www.nriat.com/italktone/>



@iTalkTone Lab



@伯恩脑电

会议成果

1. 分会

本次会议旨在总结数码医疗领域三项先进技术，探讨它们在实际应用中潜力。脑电波，眼动和辅助性机器人是我们主要关注的技术，英之间相关商业模式和投资机会也会在会议上介绍。来自心理学，医疗和 IT 背景的学者将报告他们在交流行为领域的研究成果。这些前沿技术可以促进不同群体，比如失语症，自闭症和老龄化等人群的广泛交流，以及不同场景的交流，比如说人机接口。

尤其值得一提的是，本次会议将讨论和思考健康管理驱动下的人机交互潮流。人机交互和脑机接口先进技术，将会越来越多地进入到我们的隐私领域。从经济，伦理和商业角度，我们将回答这些技术能不能给不同群体带来更多平等，平等和利益。一个“科技平等”的概念将在会议上提出和讨论。

a. 宗旨

受到本次大会主题“融和”的激发，本次会议将结合研究，商业和投资。数码医疗在医疗，健康护理，生活和社会等领域融汇了数码和基因的革命。数码医疗能够让人们更好地追踪，管理和提高自己和家庭的健康，让生活更好、更有活力，改善社会。数码医疗也帮助人们减少低效的健康护理服务，提高接触医疗的机会，降低成本，提升质量，使得医疗更加个性化和精确。2014年，数码医疗领域的风险投资在达到了41亿美元，比2013年增长了125%。更令人瞩目的是，在数码医疗领域的累加投资已经超过了同时期在传统健康护理和医疗设备开发上的投入。本次会议也是回应和支持伯恩茅斯大学即将成立数码医疗学院的计划。

b. 主题

- ❖ 中英数码医疗市场的趋势和商业模式
- ❖ 人机交互和脑机接口技术趋势
- ❖ 数码医疗领域的先进技术，特别是脑电，眼动和辅助技术
- ❖ 数码医疗技术的创新性和成本效益分析
- ❖ 数码医疗技术潜在和未来的伦理问题

c. 英国会场会议议程（中国温州和杭州在线转播）

上午议程：技术和健康护理（主持人 曾飏博士）

0900 到场登记

0925 开场白
曾飏博士

0930 现实意义，可用性和用户体验：在健康护理中，眼动技术可以或者不可以告诉我们什么？

Sine McDougall 教授 (Professor in Psychology, Bournemouth University)

1000 远程医疗服务和技术：用户可接受度和市场机会

Dr Malcolm J. Fisk (Director, Telehealth Quality Group EEIG, De Montfort University)

1030 事件相关电位成分及其在脑机接口中的应用

何逊博士 (Co-founder iTalkTone Lab, Bournemouth University)

1100 量化自发脑电和神经反馈技术在多动症和语言障碍中的应用

Tony Steffert (co-founder of Society of Applied Neuroscience)

1130 现场讨论

1200 5个简单报告

1230 午餐

下午议程：机会和健康护理（主持人 Lucy Lu 博士）

1330 伯恩茅斯和西南英格兰的数据医疗

Dr Tamas Hickish (Consultant Medical Oncologist)

1400 中国“和”式创新：可持续性发展的基石

李华教授 (Visiting Professor, Bournemouth University & President of CAMOT Academy, Cambridge)

1430 健康护理出口中国

Andy Morley (CEO, New Level Health)

1500 中国对数码医疗的需求：为什么中国不是老年人友好的地方？

曾飏博士 (Founder of iTalkTone Lab, Bournemouth University)

1530 现场讨论

1600 5个简单报告

d. Audience/听众

本次英国 HCI 2016 年会，现场听众预计如下：

- ❖ 约 200 名注册听众
- ❖ 除了英国和欧洲之外，还有北美，非洲，中东，亚洲和澳大利亚。
- ❖ 学界和产业界比例 7: 3
- ❖ 公司代表包括来自诺基亚，贝尔实验室，BBC 和微软。

在我们的分会场，现场参与的注册听众预计有 15 名。他们来自研发，工业界和投资界。同时，我们在中国有直播会场。所有的讲会在中英两地直播。我们合作伙伴温州中津先进科技研究院和中英 Hitech 创新创业论坛分别主持温州会场和杭州会场。我们预计在线听众将达 100 名。

2. “绝代意念”竞赛

绝代意念竞赛

主题：原力在哪里？

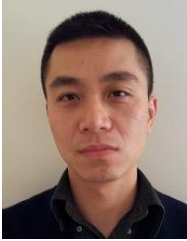
规则

1. 提供一条如何测量使用脑电波的建议或者问题，例如
 - a. 愿原力与你同在
 - b. 我可以用我的意念控制我的狗。
2. 把你的想法（少于 200 字）写下来发给 info@eeglif.com
3. 提交时间不迟于 **2016 年 7 月 10 日午夜 12 点**。
4. 选拔出两位优胜者，每人可赢得 100 镑
5. iTalkTone Lab 将在三个月内告诉你测试结果

3. 会议文章

向我们分会提交文章非常简单。您只须提交一份不超过 500 单词或者汉字的文章给我们。截止日期为 2016 年 7 月 19 日午夜。我们欢迎任何与会议主题相关的评论、商业想法或者研究结果。我们会在截止日期一周内告诉您文章是否录用，所有录用的文章会收入会议文集。详情请联系洪教授 shong@bournemouth.ac.uk

主席



曾飏博士 bzeng@bournemouth.ac.uk

iTalkTone Lab 主任，伯恩茅斯大学心理系高级研究员

曾飏博士是语言心理学家，也是 iTalkTone Lab 的创始人。他研究领域涵盖语言，交流和脑机接口。他将行为研究，脑电和眼动技术用于研究语言加工过程。同时，他也把成本效应分析应用于不同的治疗方案评估。此外，曾飏博士广泛地涉足中英之间初创企业活动。通过这些活动，他在数码医疗和教育领域开发了人机接口应用。



王振宇博士 zhengyu.wang@nriat.com

中津先进科技研究所所长

王振宇博士是计算科学专家。他在牛津大学获得博士学位之后，在英国不同研究所和投资基金工作。2015 年，在温州市政府支持下，王振宇博士建立了这座城市的高科技研发和孵化器，中津先进科技研究所。研究所旨在促进转换和升级当地产业结构。健康医疗是当地优先发展的领域，同时，王振宇博士也是当地政府商业局副局长，负责科研资源配置。

赞助人

- ❖ EEG Life (China)/绍兴伯恩脑电
- ❖ 英国伯恩茅斯大学
- ❖ 英国人机界面年会 2106

合作伙伴

- ❖ 英国
 1. Bristol & West of England China Bureau, Bristol/布里斯托及西英格兰中国交流中心
 2. Beyond Laboratory, London/超越实验室
 3. Entrepreneurs Global/天下依邦
- ❖ 中国
 1. 浙江大学加州纳米学院

2. 加恩资本

联系人

❖ 英国

洪珊瑚教授 shong@bournemouth.ac.uk

❖ 中国

黄女士 trista.huang@nriat.com (温州会场)

李先生 hitechforum_hz@126.com (杭州会场)

任先生 pren@eeglif.com (“绝代意念”创意征集)