AUTODESK UNIVERSITY

[CLASS ID] 课程编号： SD500078

[CLASS TITLE] 课程题目： **BQ 激活建构性免疫**
BQ Enables Architectural Vaccination

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[SPEAKER COMPANY] 公司： **上海数绎智能科技有限公司**
Shanghai Shuyi Smart Technology Co., Ltd.

[OBJECTIVES] **学习目标：**

- 提升行业认知：效率来自制造业数字化转型
  Improve the awareness of industry efficiency from manufacturing models
- 启发专业人员：创新性找到 BIM 数智解决方案
  Inspire professionals to discover digital-intelligence as total solution
- 实现数字基础：设计、施工和运营三阶段数据互通
  Interoperate data between design, construction and maintenance
- 孕育新兴产业：数字经济赋能实体经济
  Incubate digital economy from empowering entity economy

[DESCRIPTION] 课程内容：

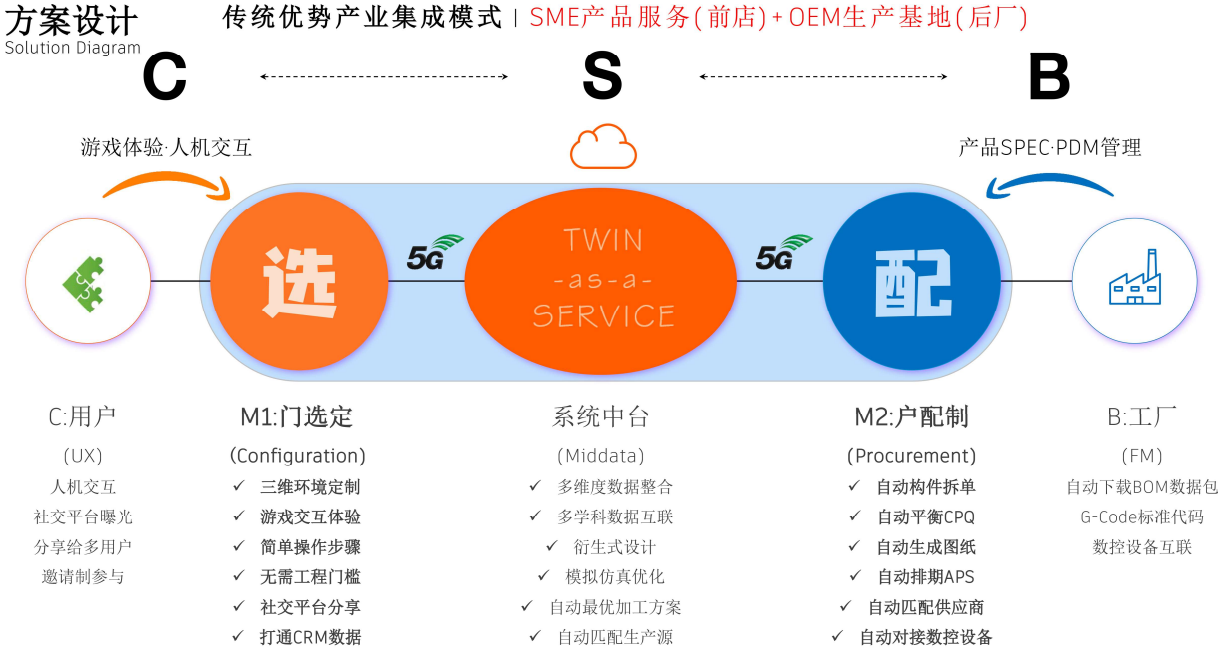
Real estate in China is on the way of The Great Escape.

BIM 救不了地产。

地产开发商和家居制造商打碎骨头连着筋: 地产开发商需要建材产品下游供应，家居制造商需要工程项目保条老命，二者互利互惠互博互伤。BIM 地产只是苟延残喘的续命手段，BIM 制造却是产业升级的秘密武器；一个降本增效改善生产效率，一个资源重构颠覆生产关系。

“每一家制造公司，最终都是 IT 公司” -J. Immelt

1. BIM 是一种工程数据治理技术，不是建筑设计软件。基于共有数据环境(CDE)理论的建模工具，将所有建筑部件分类，高效打通跨学科·跨行业·跨企业数据，尤其对于多源·异构类型。
2. 数字孪生技术属于 MBSE 范畴，能够仿真设计·制造·运维各个阶段；我们认为围绕产品数字孪生模型设计业务流程，比工厂设备数字孪生模型更加有效。
3. 建筑业已被人工分类成设计·施工·运维三个领域，难以保障数据预期传递；然而制造业一体化流程，终将成就 BIM 主战场。
4. 范围经济融合模式: 大型 OEM 生产基地（后厂）·SME 产品服务（前店），参考手机全球供应链。



“EoD(数字经济) =EXP(用户体验)+SME(中小企业)” -凯洛斯资本 Kairous Capital

1. 离散型制造瓶颈: B 端·C 端之间供需信息流闭环，驱动新型业务模式闭环；数字化转型与工厂自动化没有直接关系，因为不论人工或机器臂并不改变生产方式。

2. 数字经济顶层策略: 数字化转型主体为中小微企业，即街边门窗夫妻店; 实体店导向产业互联网，有助于城市生态绿色环境的社会效益。
3. 供应链制造商·终端产品制造商截然不同，后者才能实现 2c 模式转型·颠覆行业。

“Only 2c leads to disruption” -博世 Bosch

The global economy is currently under great transition from Mass Production to Mass Customization. However the change of an enterprise is not something internal but every stakeholders from supplychain network, when the digital economy occurs. Therefore we’d like to present 2 equations for any Digintelligence-backed business.

BQ = EQ(2c) * IQ(2b)

MC = BQ(mkt) * BT(tech)

Terminology

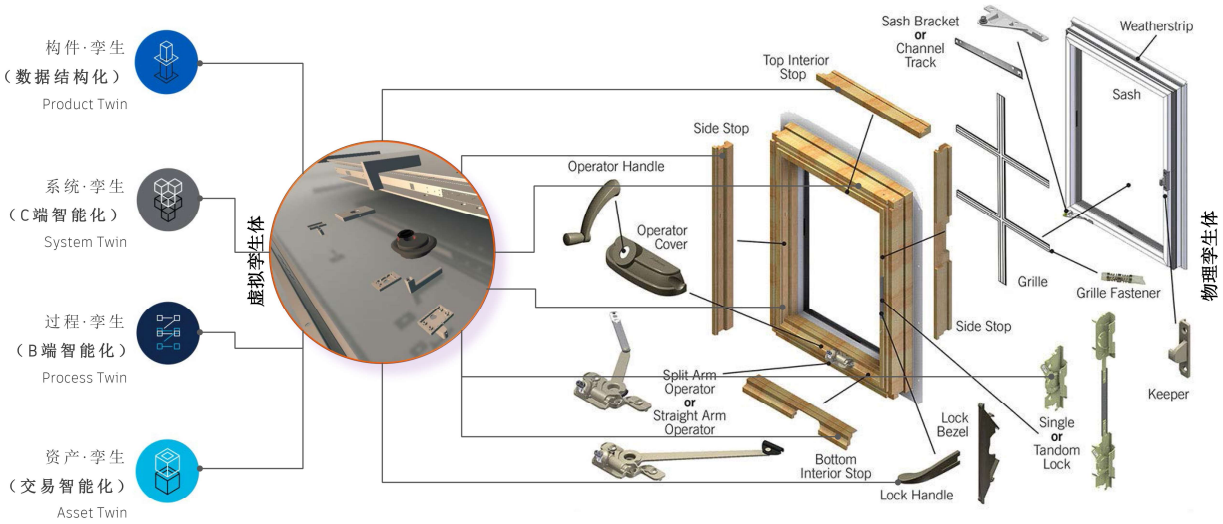
- BQ: BIM Quotient EQ:
- Emotional Quotient
- IQ：Intelligence Quotient
- MC: Mass Customization
- BT: BIM Twin

We are BIMbrain and seeking the holistic solution via synergy of brand, product, experience and system.

“家居行业是少有的、尚未资本青睐、未被互联网重构的大行业”-许春阳

户配制
Procurement Module

大数据垂直应用·商业智能化 | 柔性智造·智慧拼单·智能排程



DTT是一种基于模型的数据采集(Acquisition)·聚合治理(Governance)·流程仿真(Simulation)逆向系统工程(MBSE)

1) Combined technologies of "BIM+DTT" pattern and digitalize the parts of building components 2)Innovate/define association of digitalization and modelling and manage/synthetize/optimize PLM dataset 3) Acquire/structure/link industial-wide data-lake for vertical applications, eg. mass customization/flexible manufacturing etc. 4)Empower the industry and transform business model from 2b to 2c.

蚂蚁门服
Smart Supplychain

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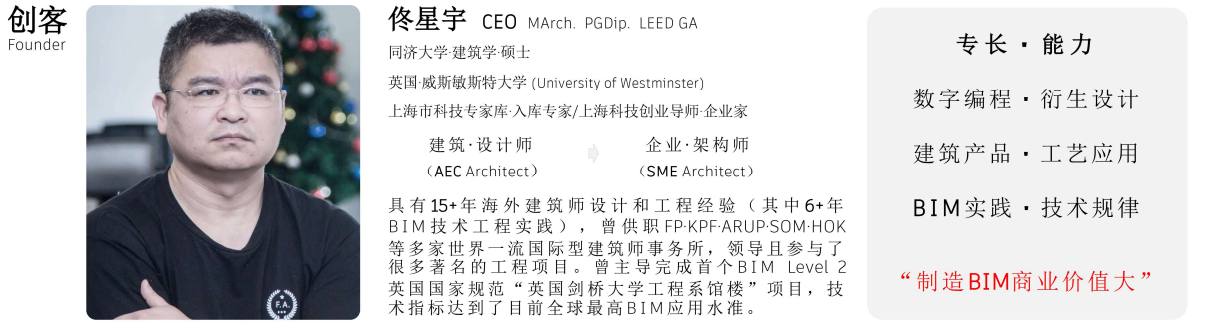

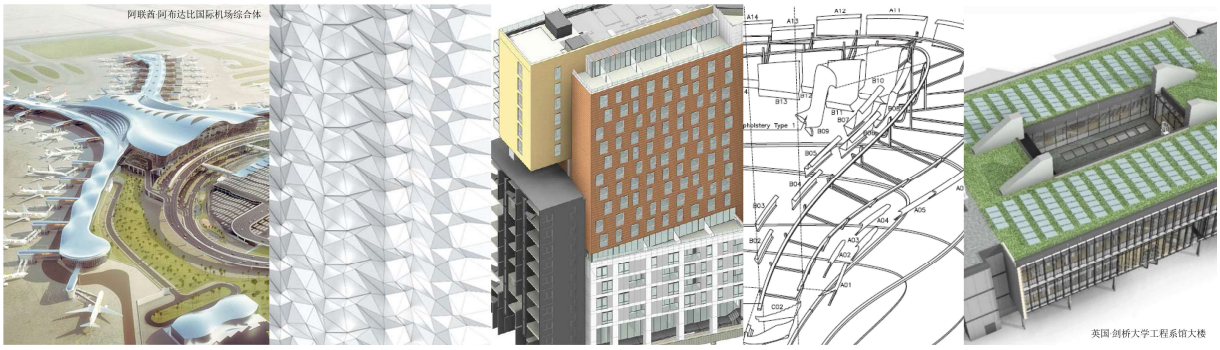

建筑设计是一种整合价值，对有限资源最科学最合理的调度。

从建筑设计师（AEC Architect）到企业架构师(SME Architect)的转型，彻底地释放了积累的激情和潜能。一个行业老兵具有 18+年海外建筑师设计和工程经验（其中 6+年 BIM 信息技术实践），曾供职 FP·KPF·ARUP·SOM·HOK 等多家世界一流国际型建筑师事务所，领导且参与了很多著名的工程项目，主要包括：阿联酋阿布达比国际机场综合体，卡塔尔多哈市 Lusail 新城轻轨站系统，英国路虎汽车高级引擎设备工厂，英国伦敦市 Paddington 中心区办公楼开发等。曾主导完成首个 BIM Level 2 英国国家规范“英国剑桥大学工程系馆楼”项目，技术指标达到了目前全球最高 BIM 应用水准。具备互补海外教育背景和全局化国际视野眼光，重新定义传统业务创新价值主张。具有美学·设计·工程·制造·IT 技术等复合型知识结构，擅长系统化理解科技规律和商业价值，并转化为科技驱动型创新模式成果。

坚信新一代建筑设计以可持续理念为指导思想，以 BIM 智能技术为实现手段，以建筑使用性能为评估标准，以学科交叉整合为目标价值。擅长建筑设计方案到建造全过程，尽可能地统筹各种跨界资源，比如信息技术·产品供应·成本管控·施工创新等等，基于传统建筑学价值规律，采用 BIM 技术创意性整合，发展出针对不同项目和团队的工作流程以及合作模式，从而节省成本·提高精度·控制时间·减少重复·最终增加价值给业主。 当前的实践方向主要：智慧建·绿色建筑·BIM 本土化·BIM 流程管理。

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领导力
Leadership

BIM Practice
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悉尼歌剧院
广州小蛮腰

Fix-The-Internet
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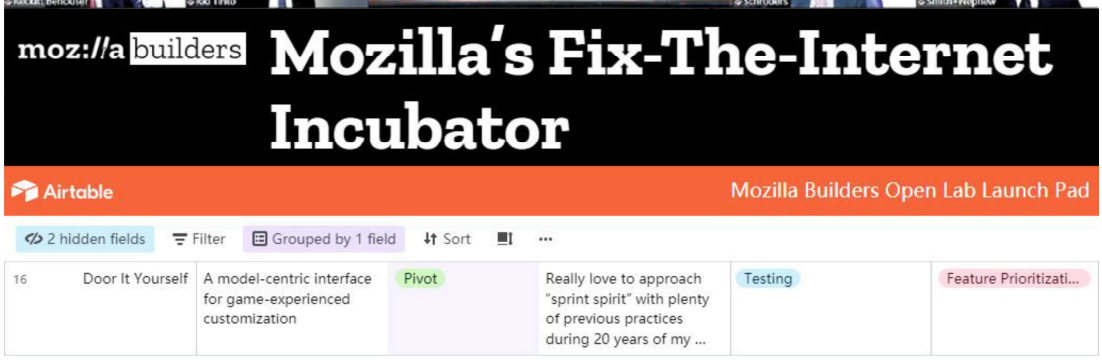

My expertise is BIM implementation to manage/assess construction dataflow in intelligent process, accordingly leads to appropriate workflow within/between teams in order for efficient and precise delivery of projects. BIM is revolutionary concept to trace the nature of industry and utilize the Virtual Reality technology for simulation. The process of BIM model informing construction in reality is not only fitting the mechanized process in design but also eliminates the repetitive elements in workflow that makes architectural design more enjoyable. The deliverable is the objective in CAD procedure but the result in BIM to avoid unnecessary consumption occurring. Its functions of inter-discipline and inter-operation breaks the barriers and unites the parties throughout the industry that results to reduction of both waste and risk. The concept of central sole model and the technique of data extraction guarantee the consistency and accuracy in data management as well as flexible date transfer between software, which increases the level of the collaboration. BIM is capable to dramatically optimize the workflow within the team and transform to be self-motivated and organized. Simultaneously it's powerful tool to encourage the communication via visualizing the information between participants especially for non-technical teams. The current skills and experiences allow to fit the roles as designer, package leader, technologist, project coordinator and manager etc. through all of RIBA stages.