4차산업혁명 시대의 보건의료서비스 – 혁신과 과제

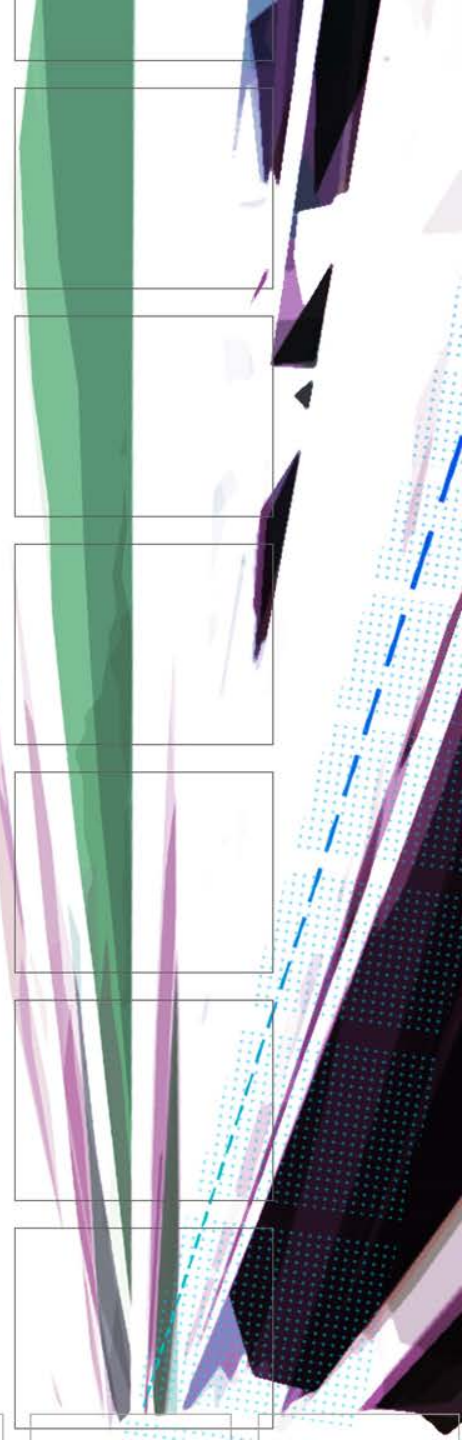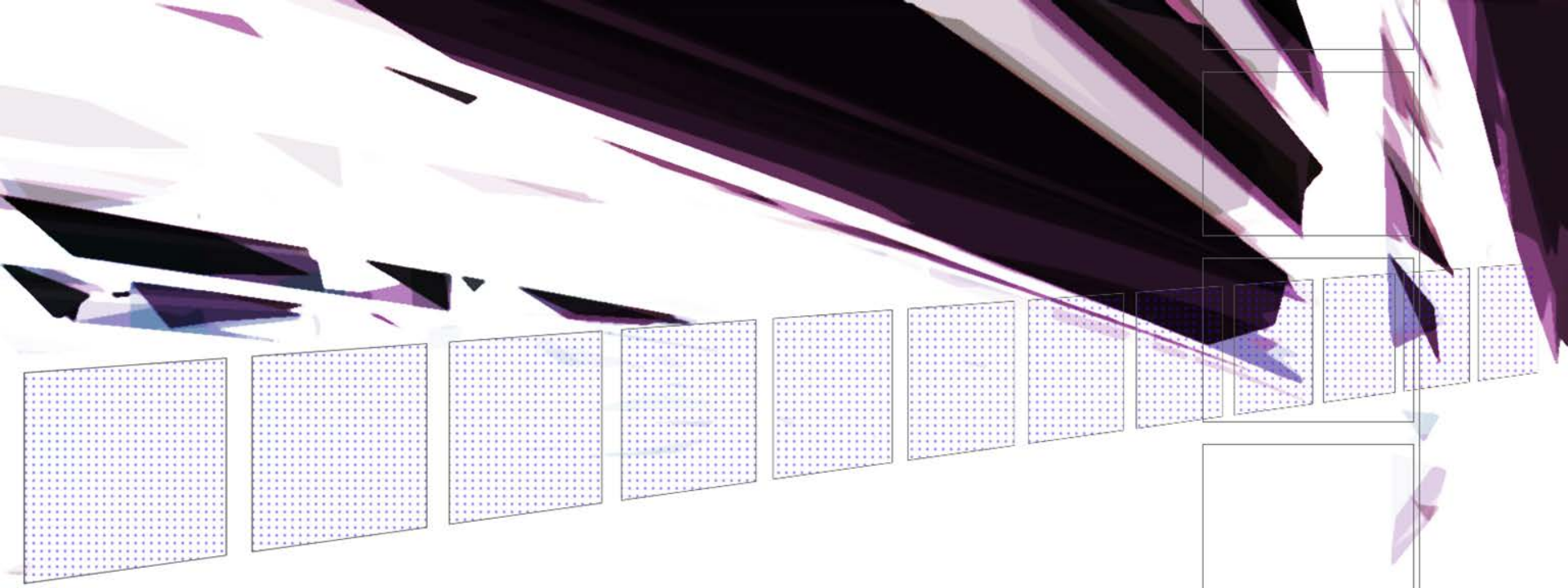**이 선 희**
이화여대 의전원 교수

4th Industrial Revolution Age
- Understanding, Key words

특징, 핵심 키워드

- 인공 지능, 사물 인터넷, 빅데이터, 모바일 등 ICT 기술이 경제·사회 전반에 융합되어 파괴적 혁신과 변화 추동

- 물리적, 생물학적, 디지털세계의 빅데이타 통합 (O2O, 스마트 기기 매개)

- IoT 진화와 디지털화 : Hyper-connectivity, 빅데이타와 AI 연계: Hyper-intelligence

- Technology driven Innovation(6대 핵심기술) : AI, Robotics, IoT, 3D printing, Nano Tech. Smart Transportation,
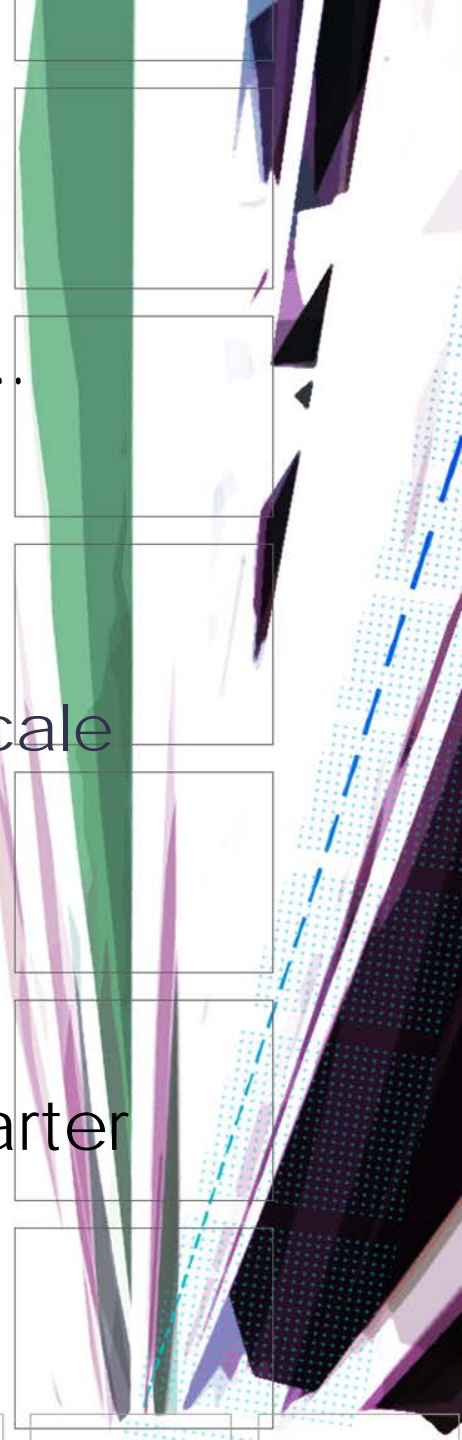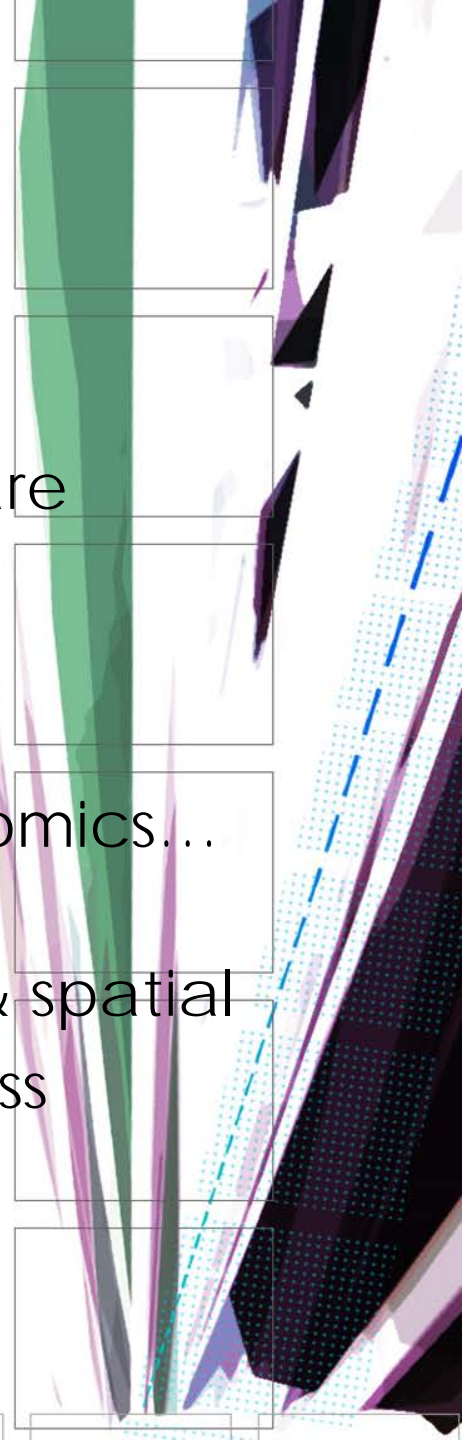
MEGA TREND
– Industry & Market

INDUSTRY

- Borderless & Convergence:
  inter-industry, inter-sector, inter-countries..
- Big Data & Knowledge as Competitive Advantage
- Speed as critical survival factor;
  1st Mover Strategy, Increasing Returns to Scale
- Sharing Business/Economy
- Open-Collaborative Innovation model
- Ecosystem on the based of ICT platform
- More slim & small, then Stronger and smarter
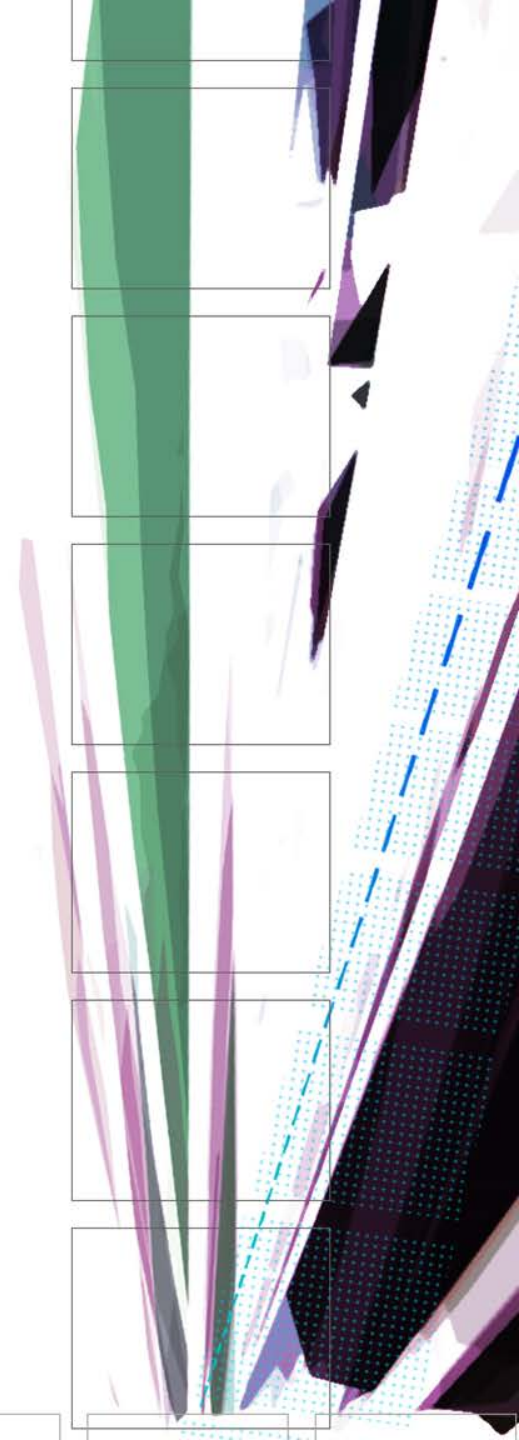- Smart company/ freelancer business
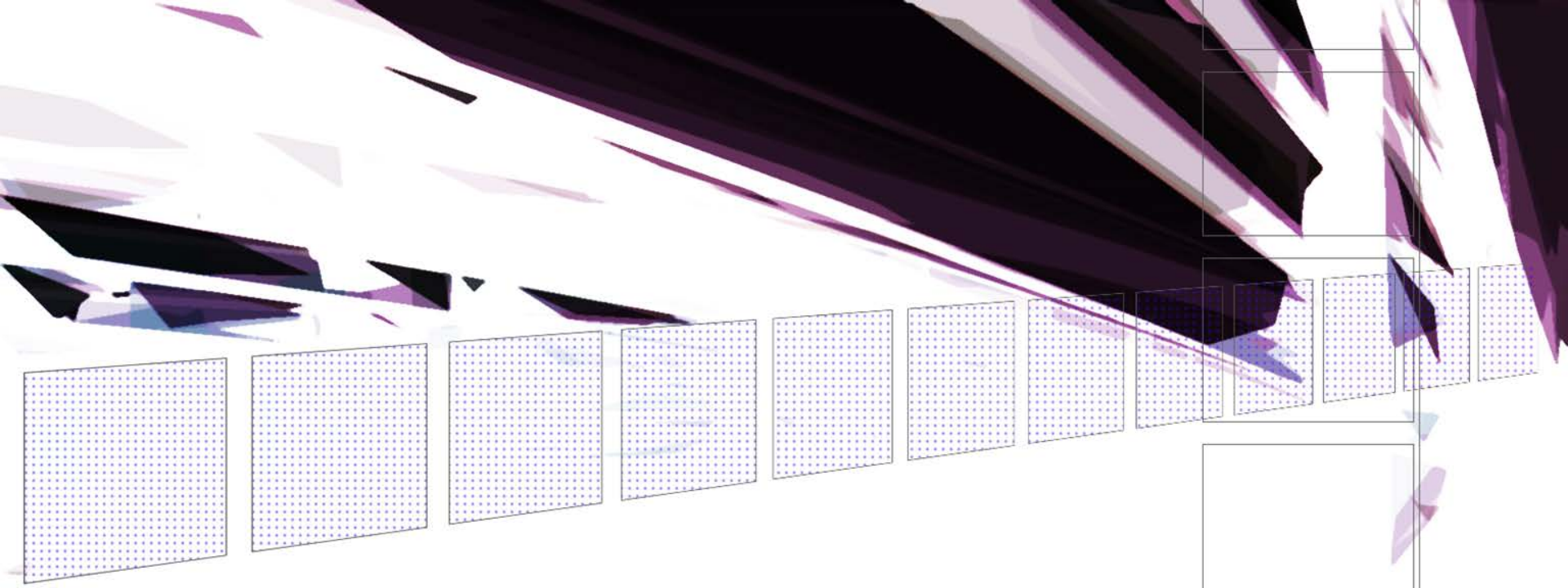
MARKET/ HEALTH INDUSTRY

- Value chain change :
  Diagnostics & Treatment → Prevention, Wellness and Predictive Med.

- Convergence betw. life wellness, home care and hospital and

- Big data as asset

- Technology driven business & product (sensoring skill, organ on chips, robots,genomics…

- Revolution in service delivery:
  Ds management process, pathway, time & spatial

- Diversification of revenue, life-cycle business platform(fr. prevention to post-treatment)

- Freelancer , new job
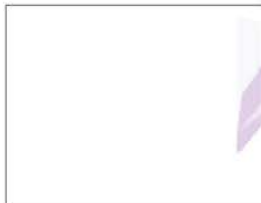
- Global Health Care, China, Asian…

CONSUMERs/ PATIENTs

- Ageless but 'new silver' & long life span, Strong & universal health demand

- Smart patients : seeker, information taker

- Participatory & Prosumer /Partnership in Dr-Pts,

- Decentralization & Differentiation: power shift in Dr.-Pts , specialty..

- Web (1.0~ ~~4.0~~ 5.0)/ Health 4.0/ Medicine 4.0

- Meditainment

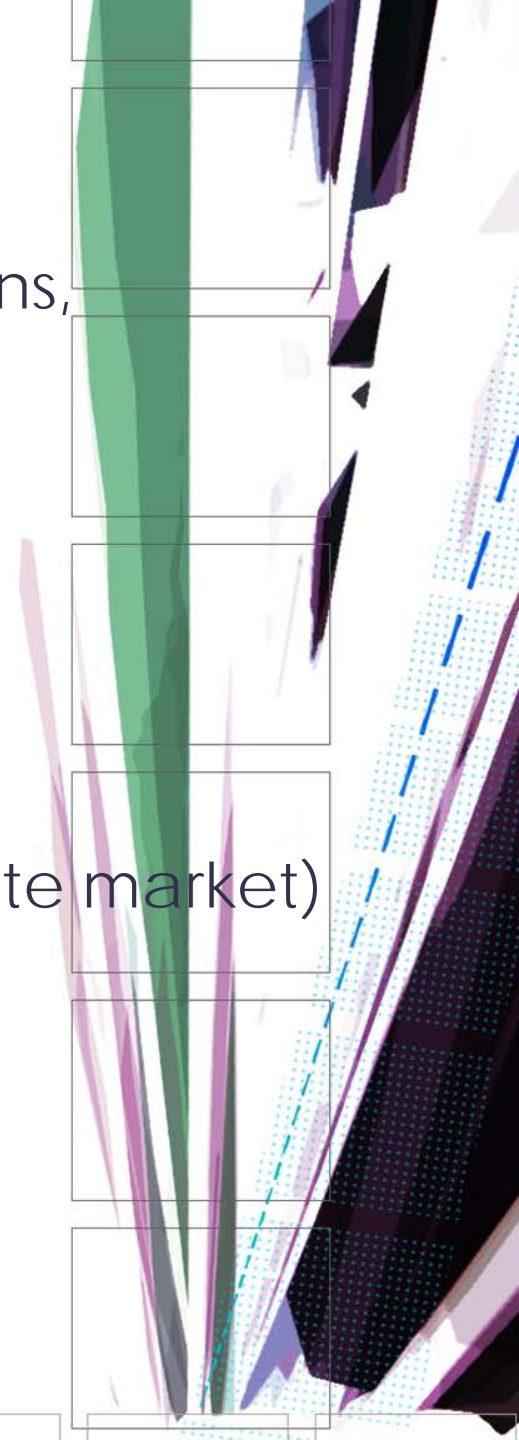- Communication media : image & video, story, SNS

CURRENT & FUTURE STRATEGIES

CURRENT: Challenges

- Big gap betw. new business and regulations, laws.. (slow, vague, not a reflect…)
- Closed system oriented regulation : barrier in open innovative ecosystem
- Conservative attitude in Technology Assessment, KFDA rules. .
- Pros & cons in information utilization
- Not use well big data as asset..(Gov. private market)
- Not meet industrial demand in education /professional training
- No control tower in inter & intra Gov. / public-private partnership
- Ethical issues

FUTURE STRATEGY:

- Policy Masterplan & Political Leadership in Set Up stage (control tower in GOV/Private)
- Success Model Making in Public Sector, first
- Open Industrial Ecosystem through user friendly Platform Infra.
- Flexible & technology friendly TA Industry, but monitoring & kicking out..
- Improving rules & regulations toward corresponding with Industrial demand
- Sharing Big Data & linking to product
- Ballence betw. information protection & usage
- Restructuring & retraining of Manpower (curriculums. Role, professional tracks..