

# Culture & Technology 2

## (Course intro)

**Changjun Lee**

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**School of Convergence**  
Culture & Technology Major



# About Instructor

이창준 (Changjun LEE)

성균관대학교 글로벌융합학부 걸쳐엔테크놀로지융합전공

- **Research Area**

- Media & Human behavior
- Technology Management
- Public Policy

- **Teaching**

- **Culture:** Technology innovation, Culture & Tech
- **Tech:** Data Science (ML), Network Science, Digital Infographics & web publishing

- About me more: [changjunlee.com](http://changjunlee.com)

## TMI

- **Other jobs:** Father of three kids
- **Things I love:**
  - Research #연구에진심
  - Chat #의외로수다맨 #선팔맞팔
  - Play #GUITAR #TENNIS
  - Travel #여행



# About Instructor

이창준 (Changjun LEE)

성균관대학교 글로벌융합학부 걸쳐엔테크놀로지융합전공

## Ongoing Projects



디지털전환에 따른 사회부문 국가발전지표 진단연구

**Funding** 통계청  
**Start** 2023-05-01  
**Due** 2023-11-30  
**State** Ongoing



언론과 소셜 미디어 상의 건강보험공단 관련 이슈 분석

**Funding** 건강보험공단  
**Start** 2023-04-01  
**Due** 2023-12-31  
**State** Ongoing



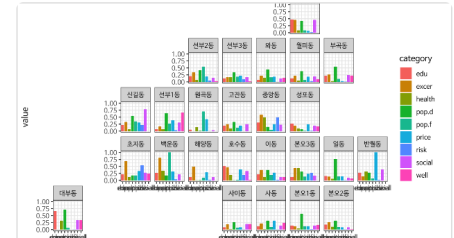
가상세계 멀티 페르소나 성향과 사용자의 인지 강화

**Funding** 한국연구재단  
(2022S1A5A805107011)  
**Start** 2022-05-01  
**Due** 2023-04-30  
**State** Ongoing



플랫폼 산업의 경제 효용 추정: 자국 검색 플랫폼이 온라인 산업에 미치는 영향

**Funding** 한국연구재단  
(2020S1A5A2A0304148012)  
**Start** 2020-07-01  
**Due** 2023-06-30  
**State** Ongoing



건강 형평성 파악을 위한 안산시 건강지도 제작 연구

**Funding** 안산시지속가능발전협의회  
**Start** 2021-06-01  
**Due** 2021-12-22  
**State** Completed

# Introduction to Culture & Technology 2

- **Date and Location**

- 20230830 ~ 20231213 (매주 수요일)
- 09:00 ~ 11:45
- 중앙학술정보관 Active Learning Classroom (70527)

- **Course HOME**

- 수업 내용, 자료, 공지, 소통이 이루어지는 플랫폼
- 아래 수업 홈페이지 링크!
  - [https://changjunlee.com/teaching/cul\\_tech/](https://changjunlee.com/teaching/cul_tech/)
- 캔버스
  - <https://canvas.skku.edu/courses/43242>
- 출석체크
  - <https://attend.skku.edu/>

## Culture & Technology 문화와기술2

```
a <- "Culture"  
b <- "Technology"  
paste0("Welcome to ", a, " & ", b, " ", 2)
```

[1] "Welcome to Culture & Technology 2"



[About course](#)

(코스 소개)



[Weekly design](#)

(주차별 학습)



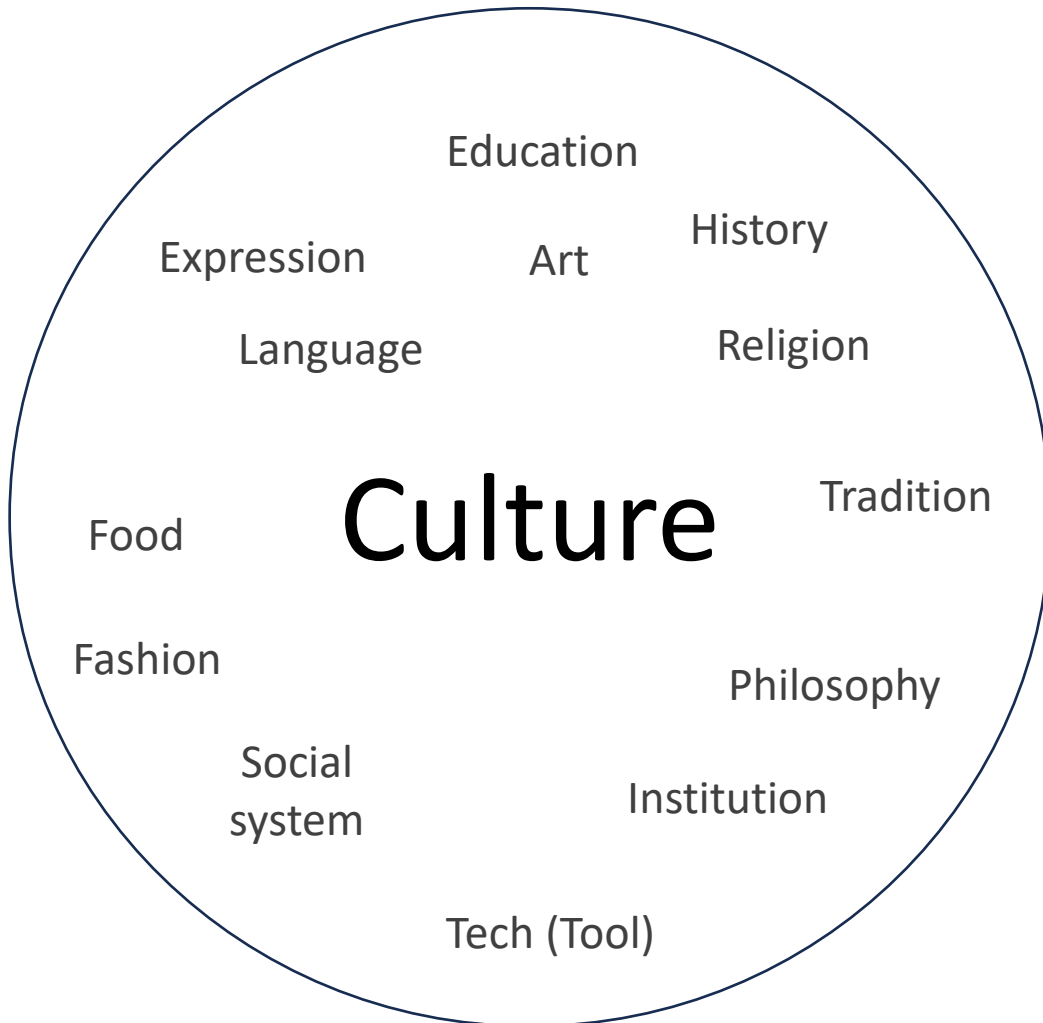
[PBL](#)

(PBL project)



# About Culture & Technology

## Culture?



Culture is

- a **complex and multi-faceted concept** that encompasses the shared beliefs, values, norms, customs, arts, history, folklore, and institutions of a group of people.
- the **collective programming of the mind** that distinguishes one group or category of people from another.
- Culture shapes how people see the world, interact with each other, and experience life.

## Functions of Culture

- **Identity:** Culture provides individuals with a sense of belonging and identity.
- **Social Cohesion:** It serves to bind communities together, providing common ground and a shared sense of purpose.
- **Preservation:** Culture helps to preserve history and collective memory, providing continuity across generations.
- **Guidance:** Cultural norms and values guide individual behavior and social interactions.

# About Culture & Technology

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## Tech?

### Technology

- Sum of techniques, skills, methods, and processes used to achieve goals or solve problems in various fields.
- It involves the application of scientific knowledge for practical purposes and can be both material and immaterial.
- pervasive in modern society, influencing various aspects of life

### Key Features of Technology

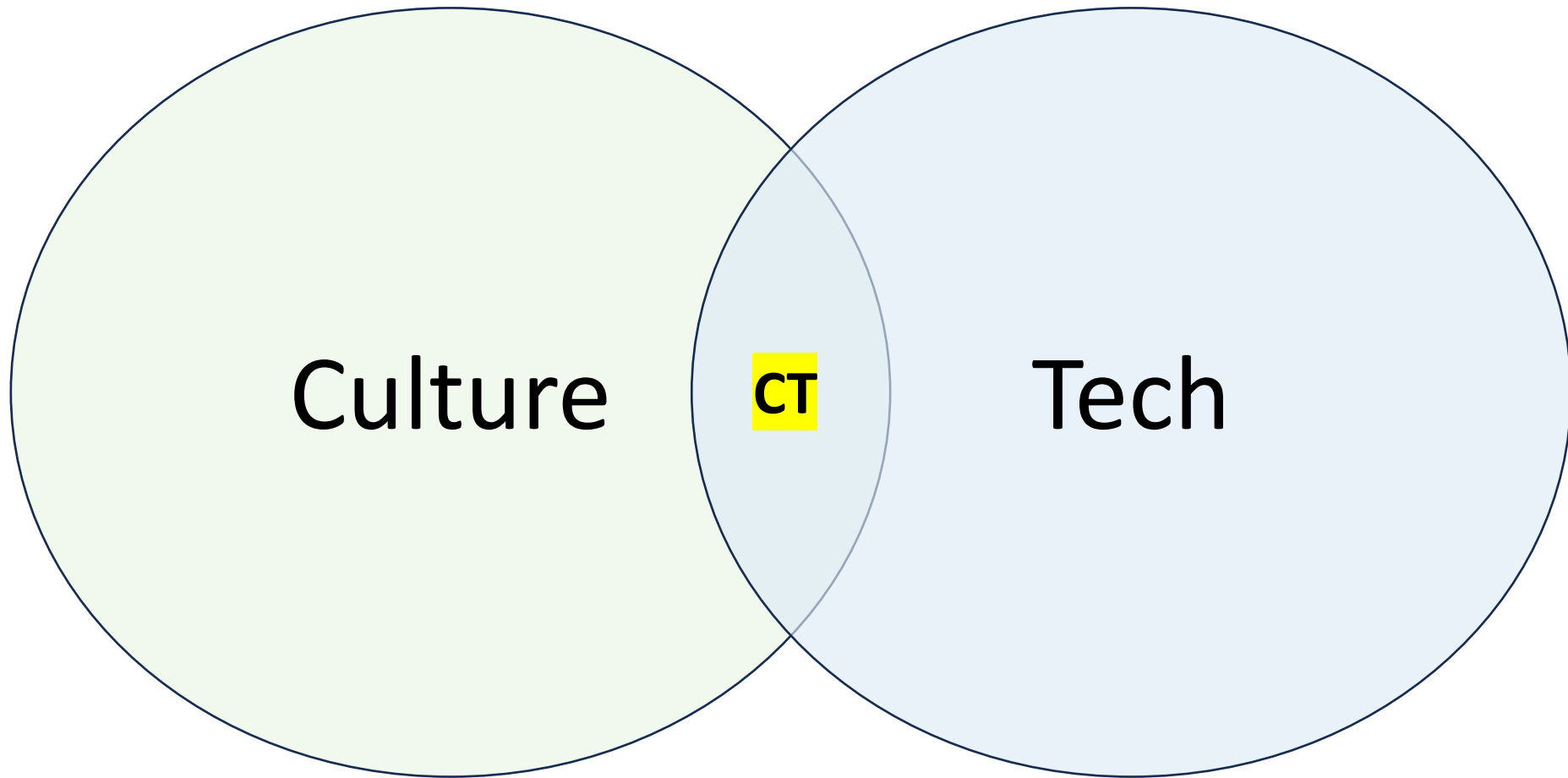
- **Innovation:** The continual development of new methods, tools, and systems.
- **Application:** The use of scientific principles to solve practical problems.
- **Utility:** Designed to serve a purpose or fulfill a need.
- **Accessibility:** Over time, most technology becomes more accessible to a larger number of people.

### Impacts of Technology

- **Societal Impact:** Technology shapes social structures, roles, and interactions.
- **Economic Impact:** It can drive economic growth, create jobs, and foster innovation.
- **Environmental Impact:** The use and disposal of technology can have a significant impact on the environment.

# Relationship Between Culture and Technology

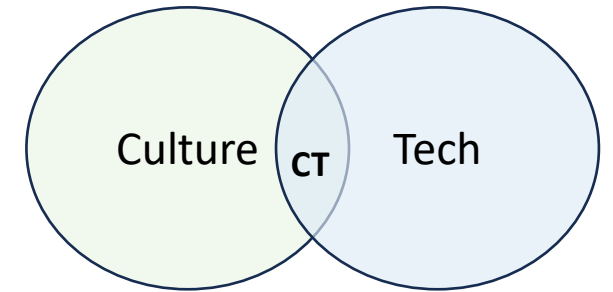
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# Relationship Between Culture and Technology

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Culture Technology (CT) is

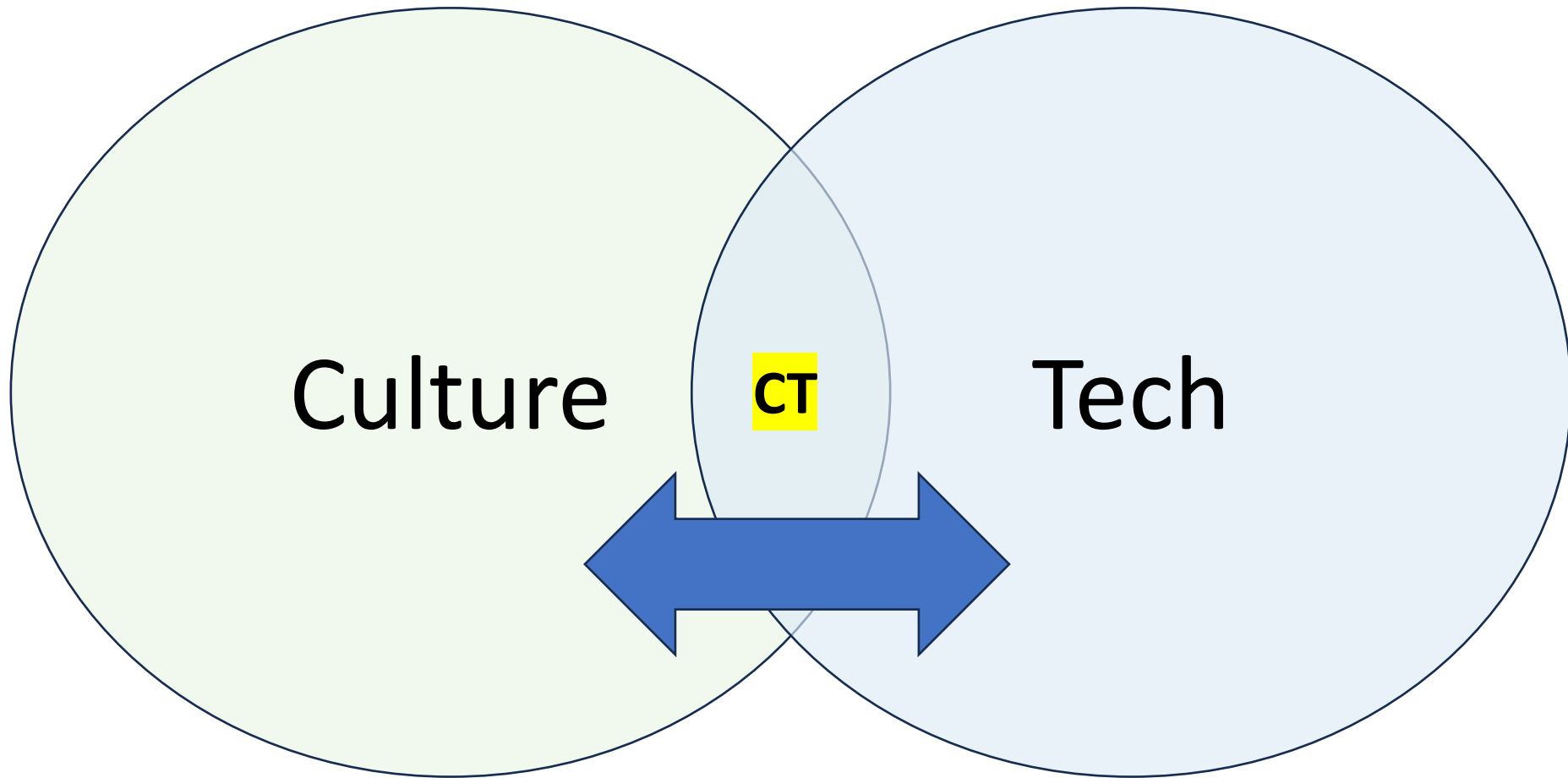


- a concept that blends elements of culture and technology to create, distribute, or enhance cultural products and experiences.
- It aims to maximize the reach, influence, and effectiveness of cultural aspects by leveraging technological advancements.
- Culture Technology is particularly relevant in fields like entertainment, art, education, and communications.
- It's a **multidisciplinary approach** that often involves teams of artists, engineers, data scientists, and other experts working together to create something that is both culturally resonant and technologically innovative.



# Relationship Between Culture and Technology

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# Relationship Between Culture and Technology

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## How Technology Influences Culture?

1. Communication
2. Globalization
3. Entertainment
4. Preservation and Documentation
5. Education
6. Economic Impact

# Relationship Between Culture and Technology

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## How Technology Influences Culture?

### Communication

Technologies like the internet, smartphones, and social media platforms have **changed the way people communicate**, thereby affecting cultural norms around interaction, privacy, and information sharing.



# Relationship Between Culture and Technology

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## How Technology Influences Culture?

### Globalization

Technology facilitates the spread of culture across geographical boundaries, allowing for a blend of local and global influences. This can result in **cultural homogenization** but also enriches local cultures through cross-cultural exchanges.



# Relationship Between Culture and Technology

## How Technology Influences Culture?

### Entertainment

Streaming services and social media platforms have revolutionized the way people consume and interact with cultural products like music, movies, and art. This has implications for cultural preferences and the economics of the entertainment industry.



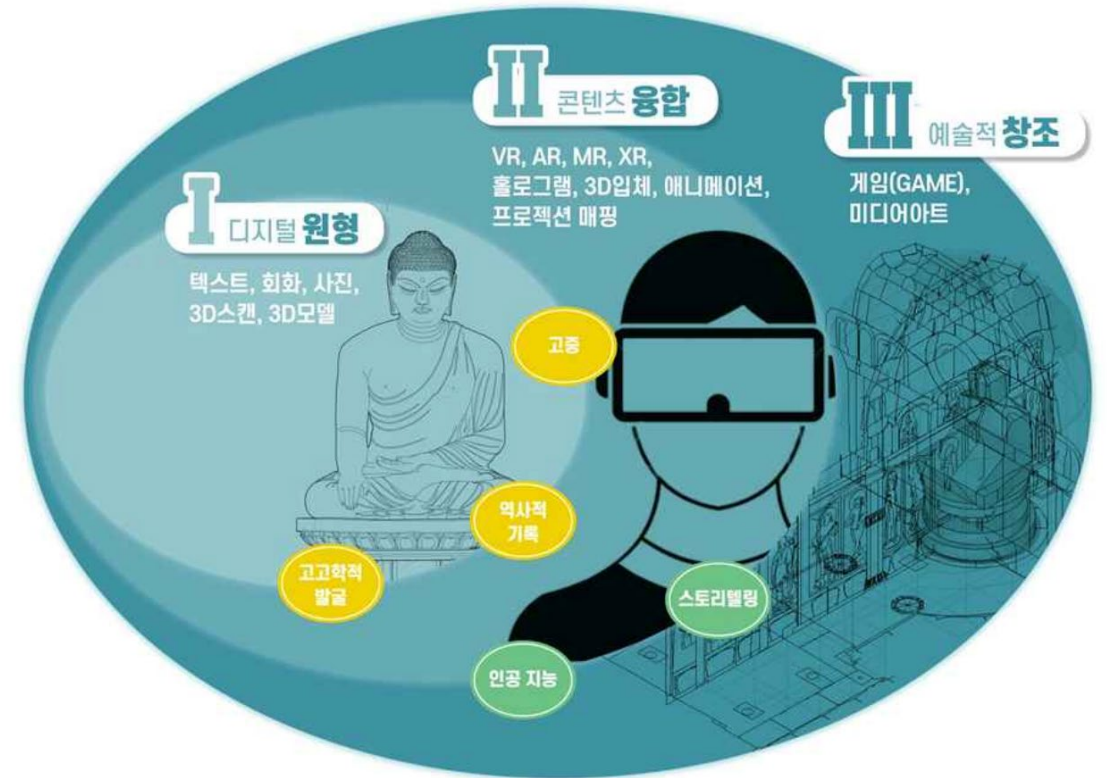
<SuperM 온라인 전용 공연 SuperM - Beyond the Future의 모습. (사진=SM엔터테인먼트 제공)>

# Relationship Between Culture and Technology

## How Technology Influences Culture?

### Preservation and Documentation

Technologies like digital archiving, 3D scanning, and virtual reality help in the preservation and dissemination of cultural heritage, from historical monuments to endangered languages.



〈그림1〉 디지털헤리티지의 3가지 영역 구분  
자료: 제 2회 '디지털헤리티지 콘텐츠 포럼'(박진호)

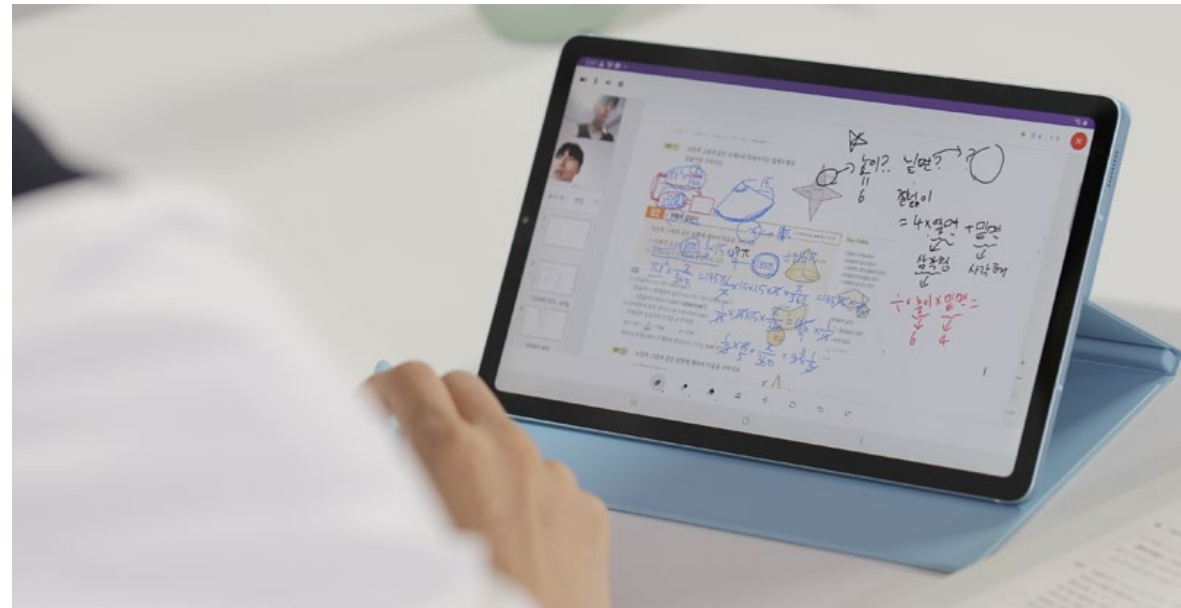
# Relationship Between Culture and Technology

## How Technology Influences Culture?

### Education

E-learning platforms and educational software make it easier to share and propagate cultural knowledge, values, and histories.

‘수파자’ 비대면 실시간 교육 플랫폼



# Relationship Between Culture and Technology

## How Technology Influences Culture?

### Economic Impact

Technology can influence the profitability and distribution of cultural products, affecting what kind of art gets produced and who has access to it.





# Relationship Between Culture and Technology

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## How Culture Influences Technology?

- 1.Design and Usability
- 2.Adoption Rates
- 3.Ethical Framework
- 4.Innovation
- 5.Narratives and Symbolism

# Relationship Between Culture and Technology

## How Culture Influences Technology?

### Design and Usability

Cultural norms and expectations often influence the design of technology. For example, the user interface of a software may be adapted to suit the languages and usability expectations of different cultural groups.

#### 문화적 맥락을 고려한 UI/UX 설계

- 색상 및 심볼: 색상은 문화마다 다른 의미를 가질 수 있음.
- 날짜와 시간 형식: 미국과 유럽에서는 날짜 형식이 다름.
- 좌우 구성: 일부 아랍어와 히브리어와 같은 언어는 오른쪽에서 왼쪽으로 진행, 이에 따라 UI 구성이 달라짐



# Relationship Between Culture and Technology

## How Culture Influences Technology?

### Adoption Rates

Different cultures adopt technologies at varying speeds, influenced by factors like existing infrastructure, economic conditions, and cultural openness to innovation.



# Relationship Between Culture and Technology

## How Culture Influences Technology?

### Ethical Framework

Cultural values influence **the ethical considerations around technology use**, including privacy, data security, and human-robot interactions.

사람이 중심이 되는  
인공지능(AI) 윤리기준

인공지능 윤리기준의 목표 및 지향점  
모든 사람이 모든 분야에서 자율적으로 준수하며 지속발전

AI for Humanity

인공지능이 지향하는 최고의 가치는 **인간성**입니다

3대 기본원칙

- 인간의 존엄성
- 사회의 공공선
- 기술의 합목적성

10대 핵심요건

- 인권보장
- 프라이버시보호
- 다양성 존중
- 침해금지
- 공공성
- 연대성
- 데이터 관리
- 책임성
- 안전성
- 투명성

대한민국  
산업혁명위원회  
PRESIDENTIAL COMMITTEE ON THE  
FOURTH INDUSTRIAL REVOLUTION

과학기술정보통신부  
Ministry of Science and ICT

# Relationship Between Culture and Technology

## How Culture Influences Technology?

### Innovation

The types of problems that technology aims to solve can be culturally determined. For example, in some cultures, there may be more emphasis on developing social networking tools, while in others, medical or agricultural technologies may take precedence.



# Relationship Between Culture and Technology

## How Culture Influences Technology?

### Narratives and Symbolism

Culture shapes the stories we tell about technology—whether it's seen as a force for good or ill, a driver of progress, or a threat to tradition.

Technology as a  
Driver of Progress

vs.

Technology as a  
Threat to Tradition

Technology as a Force for Good



Withdrawals with  
**m-pesa**  
Kenya

Technology as a Force for ill



# About Culture & Technology

Marketing Entrepreneurship/startup	Business
Media art Digital/interactive art Visual art Theatrical/performing art	Art
Storytelling Literature History	Humanities
K-pop (entertainment) Movie, TV show Digital content Music Game	Content

소프트웨어 **융합** 대학  
글로벌 **융합** 학부  
컬처앤테크놀로지 **융합** 전공

## CULTURE & TECHNOLOGY

Media Tech	VR, AR, MR Mobile, wearable Robot Transmedia
Creative Tech	Web/app development AI in creative Collaborative creation Data creative
Business Tech	Data application Performance marketing

# Convergence

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Convergence: Connecting the dots





# Convergence

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About me..

평범하지 않았던 커리어



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Bachelor's degree: **Biology** (B.Sc)

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Graduate school: **Technology Management** (Ph.D.)

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Postdoctoral Researcher: **Public Policy**

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Postdoctoral Researcher: **Evolutionary Economic Geography**

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**Media & Informatics** @Hanyang Univ.

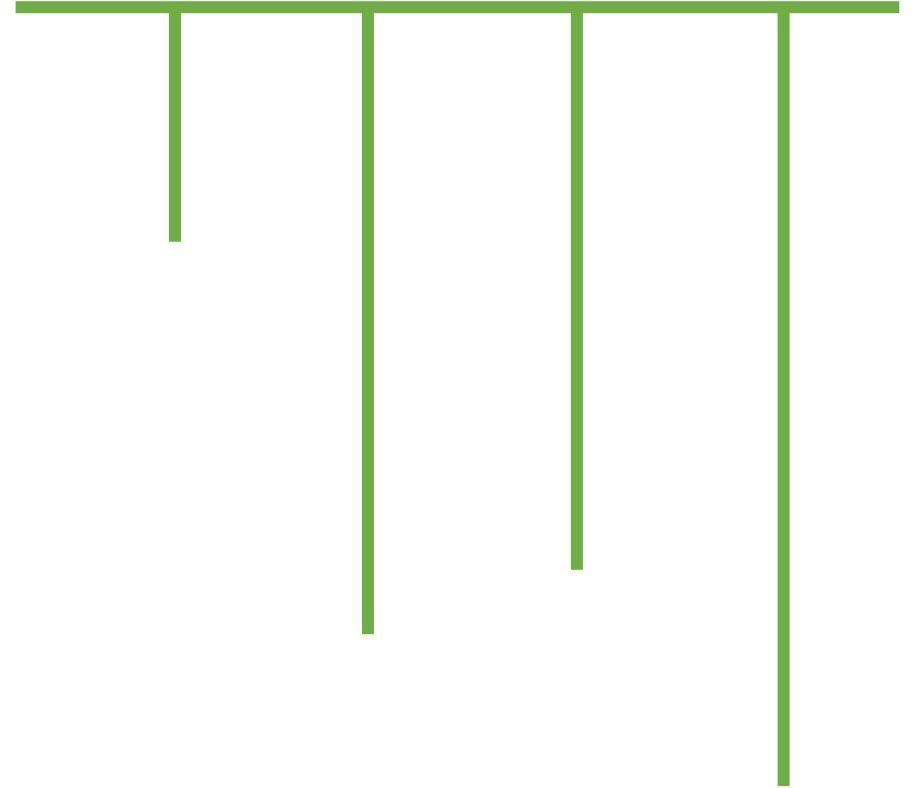
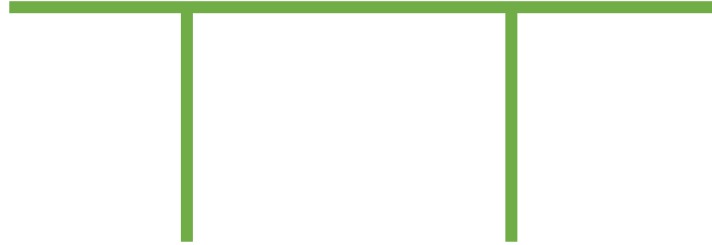
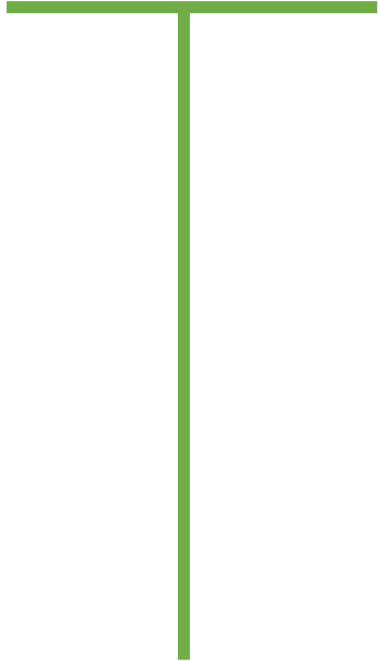
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**Culture & Technology** @SKKU

# Convergence

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What type of talent are you?

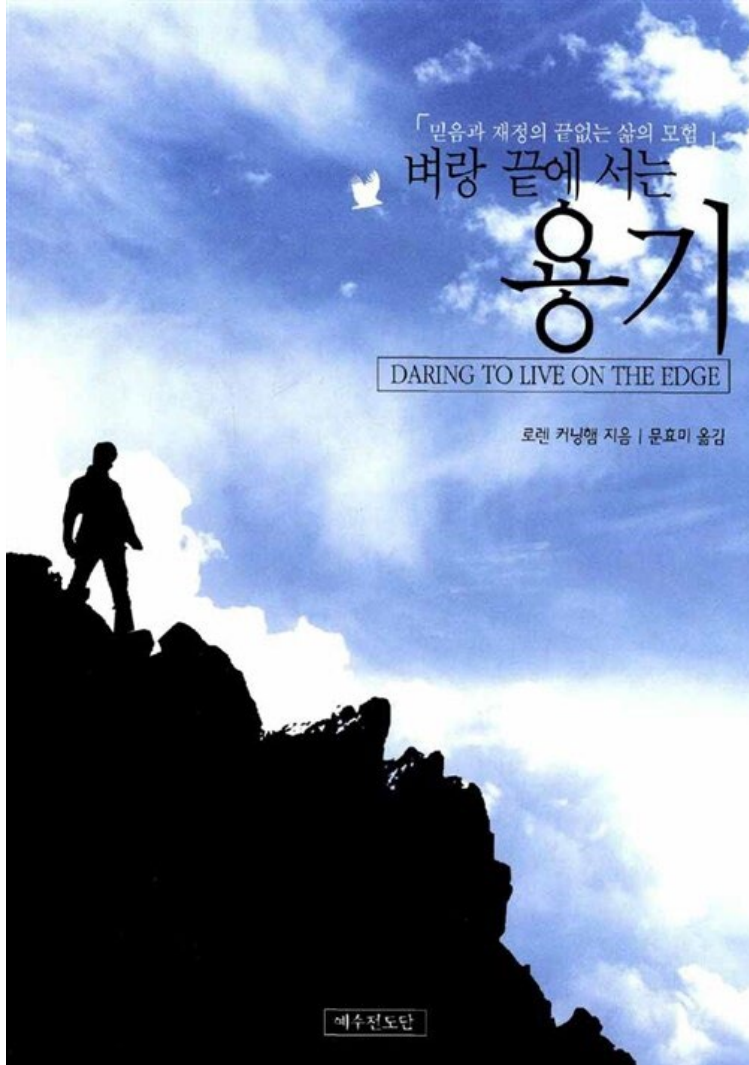


# Convergence

융합인의 고뇌



# Convergence



융합은  
낮선 곳으로의 초대



# Convergence

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준비된 융합인에게 기회는 반드시 온다



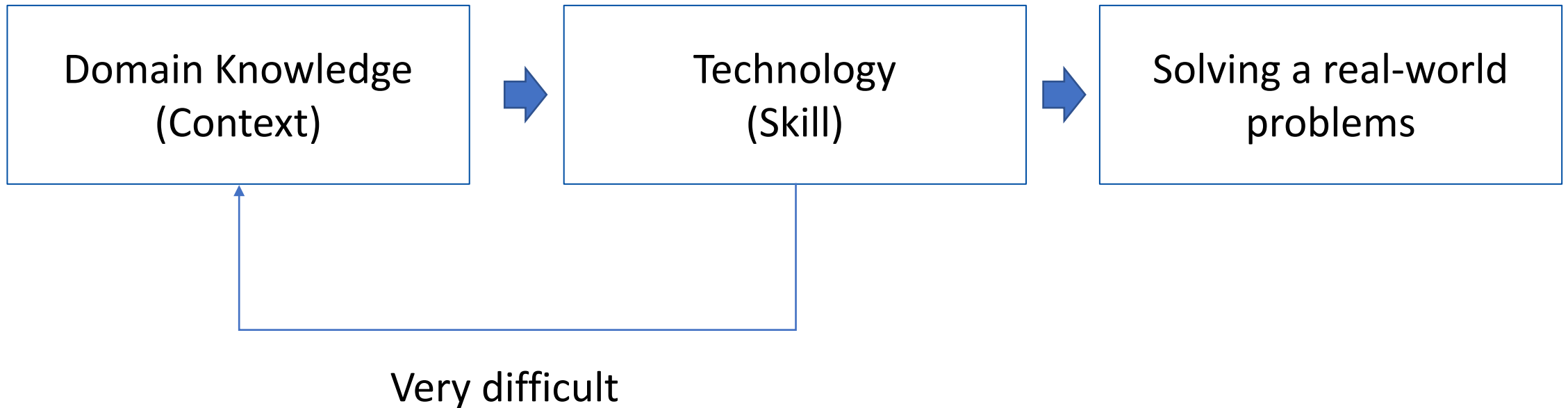
# Convergence

비전공자(#머글)이 테크니션(#마법사)가 되면 더 좋은 이유?



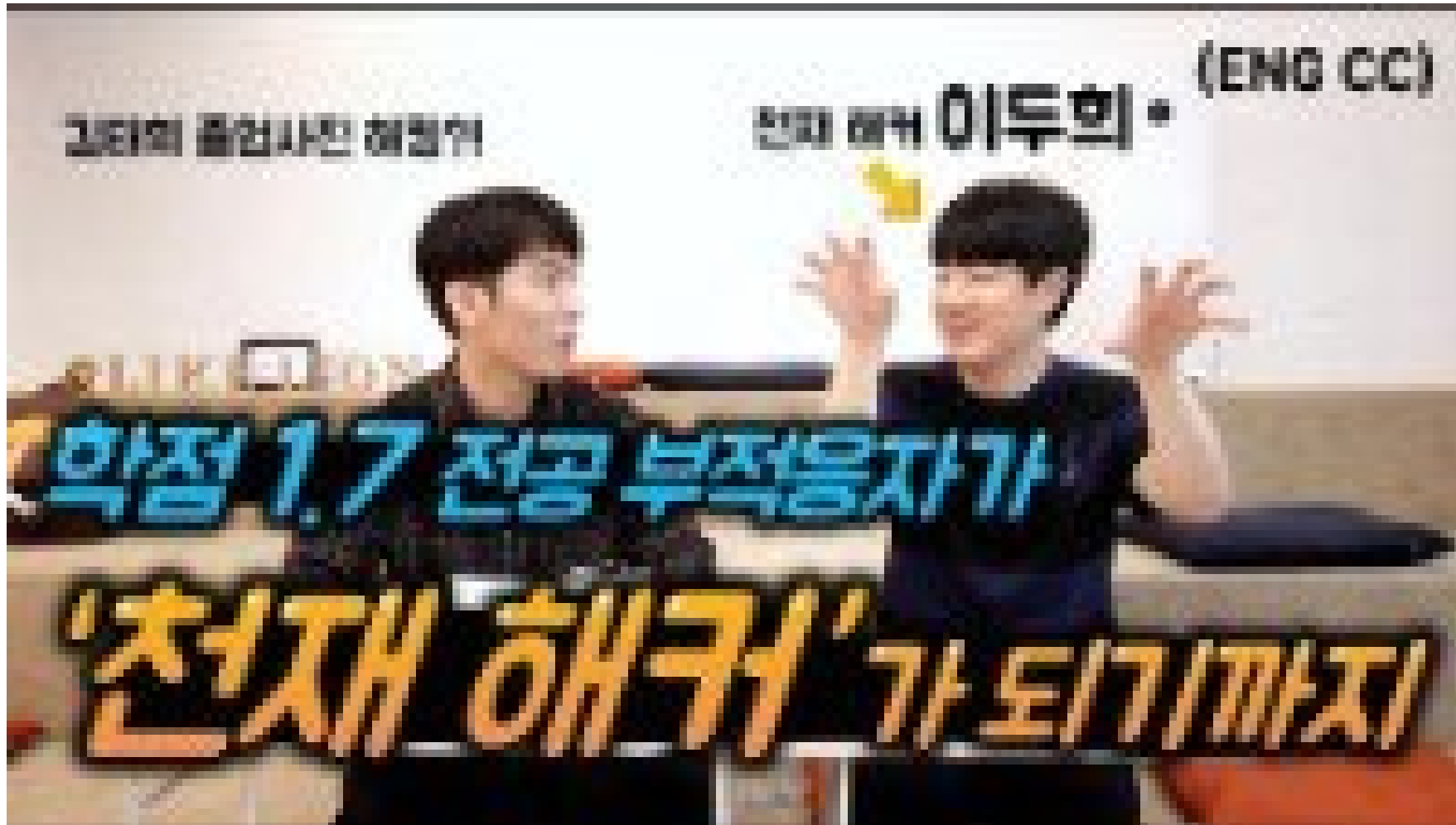
# Convergence

비전공자(#머글)이 테크니션(#마법사)가 되면 더 좋은 이유?



# Convergence

비전공자(#머글)이 테크니션(#마법사)가 되면 더 좋은 이유?





## 비전공자(#머글)이 테크니션(#마법사)가 되면 더 좋은 이유?



“비전공자들이 오히려 두각을 나타내는 사례들이 나오고 있음.”

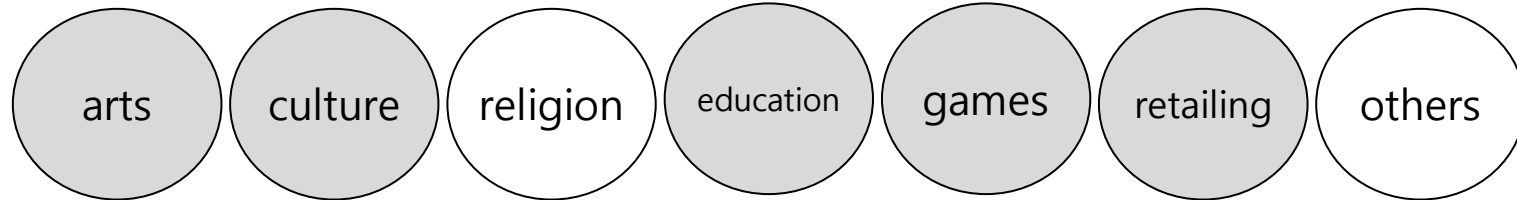
### 비전공자로서 데이터 사이언티스트가 갖춰야 할 최소한의 기술

데이터 사이언티스트를 전공하거나 아직 전문지식을 갖추지 않았다고 해서 데이터 사이언스를 다루지 못하는 건 아닙니다. 하지만 최소한의 기술적 지식을 갖추고 있어야 합니다. 빅데이터 전문 업체의 현직 데이터 사이언티스트의 말에 따르면 최소한 원하는 데이터를 분석하고 결론을 내릴 정도의 기술을 갖춰야 합니다. 따라서 데이터베이스에서 사용하는 언어인 SQL 언어나, R, 파이썬과 같은 스크립트 언어를 알아야 합니다. 스스로 비즈니스 지표를 만들고 활용할 수 있어야 합니다.

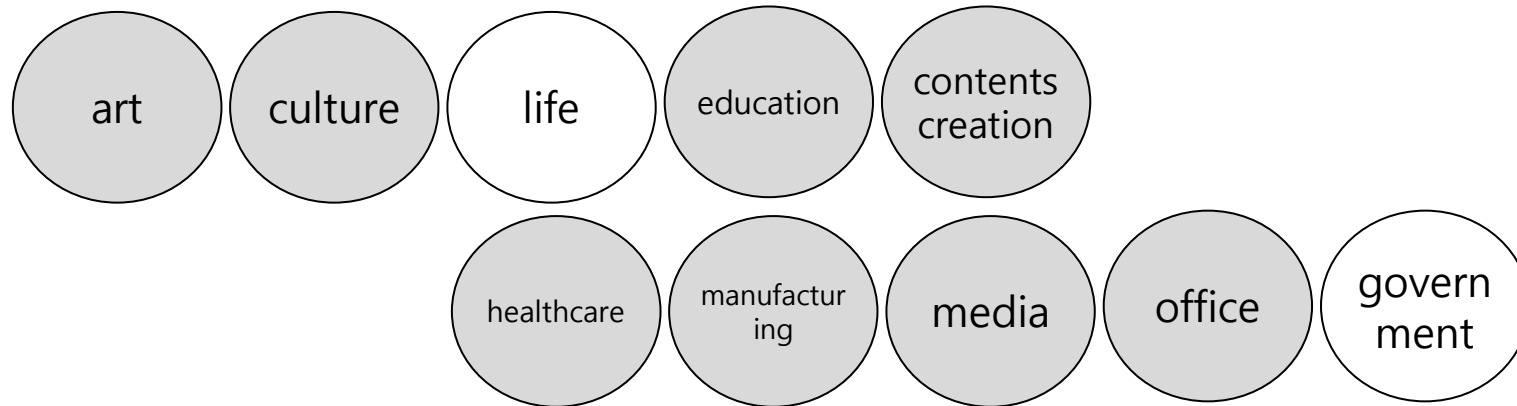


# 첨단 기술이 바꿀 미래

Narin (2021) : 지난 20년간의 연구 메타분석 결과 7분야 선정



한국정부 관계부처 합동 '메타버스 신산업 육성전략'(2022) 10분야 선정



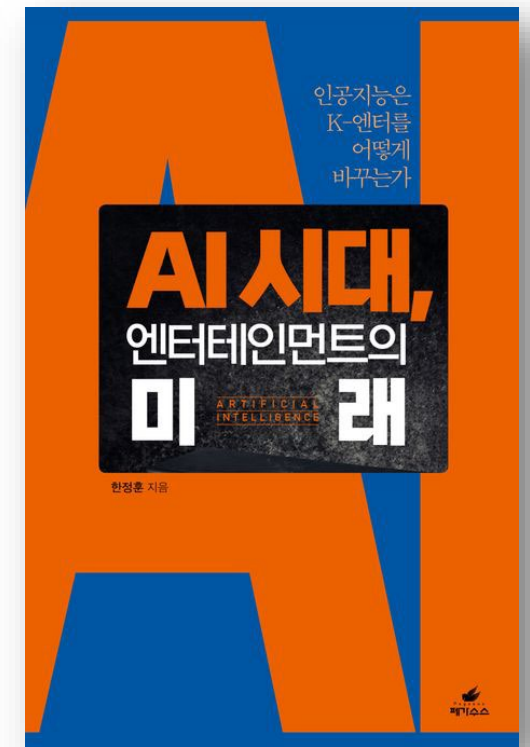
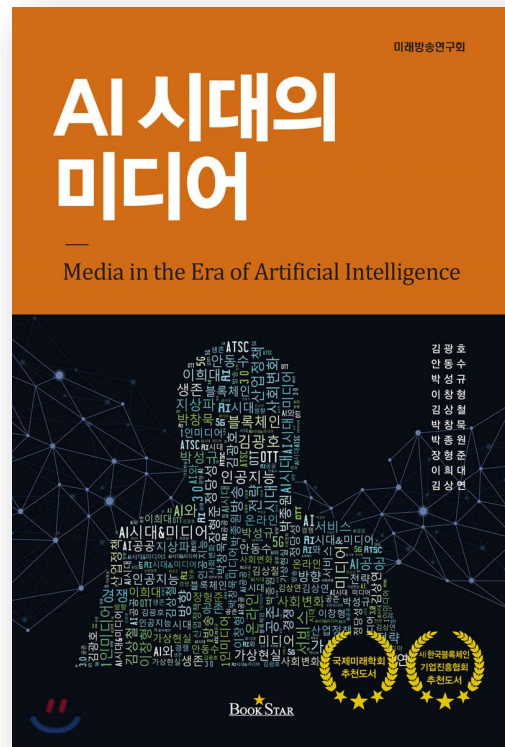
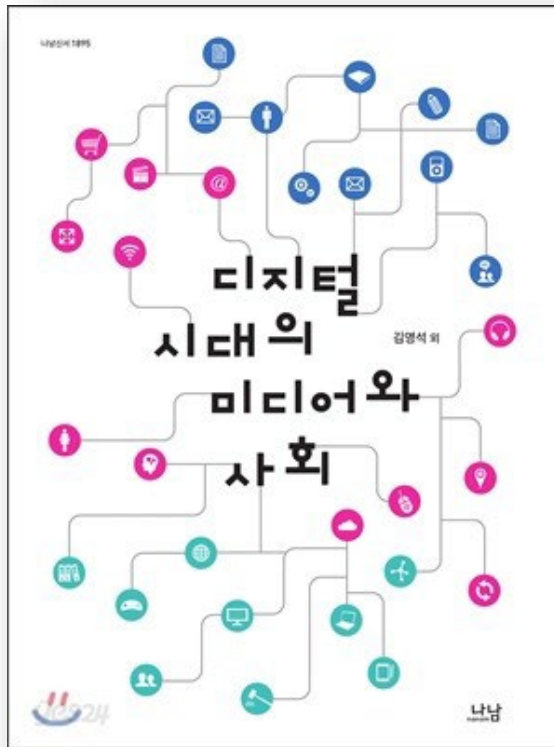
# Overview of the Course

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**Weekly breakdown** ([https://changjunlee.com/teaching/cul\\_tech/weekly/](https://changjunlee.com/teaching/cul_tech/weekly/))

- **Intro**
- **Part I: Media** as a Mediation of cultural formation and diffusion
- **Part II: Voice** from Culture Industry
- **Part III: Understanding the Cultural Industry**
- **Part IV: Wrap-up & PBL** Activity

# Textbooks



## PBL Project

문제기반학습 프로젝트 소개

### 목표

협력 기업에서 주어진 문제 시나리오를 수업 시간에 배운 문화 사업과 미디어에 대한 이해를 바탕으로 팀 별로 해결을 위한 아이디어를 고안해본다. 인터뷰, 설문, 데이터 분석 등 모든 방법을 동원하여 실제 기업의 문제를 풀어 봄으로써 문화 산업과 기술에 대한 이해를 높이고 현장의 멘토링과 평가를 통해 현장감을 높이고 실전 경험을 갖춘다.

- Link ([https://changjunlee.com/teaching/cul\\_tech/icpbl/](https://changjunlee.com/teaching/cul_tech/icpbl/))

# PBL Activity: Final output example

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- **Executive Summary**
- **Introduction**
  - Problem Statement
  - Objectives
- **Methodology**
  - Data Collection
  - Data Analysis
- **Findings**
- **Proposed Solutions**
- **Implementation Plan**
  - Risks and Contingencies
  - Cost-Benefit Analysis
- **Conclusion**

# PBL Activity: Final output example

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- **Executive Summary:** Brief overview of the problem, methodology, key findings, and recommended solutions.
- **Introduction:** Background of the project and context within which the company operates.
  - **Problem Statement:** Detailed description of the problem provided by the company.
  - **Objectives:** Specific goals the project aims to achieve.
- **Methodology:** Explanation of the methods and techniques used to address the problem.
  - **Data Collection:** Describe the data collection process, sources, and tools used.
  - **Data Analysis:** Presentation and interpretation of the data.
- **Findings:** Key discoveries made during the project that are relevant to solving the problem.
- **Proposed Solutions:** Detailed explanation of proposed solutions, backed up by data and findings.
- **Implementation Plan:** Step-by-step guide on how to implement the proposed solutions.
  - **Risks and Contingencies:** Identification of potential risks and alternative plans.
  - **Cost-Benefit Analysis:** Financial implications of the solutions, including costs and expected benefits.
- **Conclusion:** Summary of the report and the feasibility of implementing the proposed solutions.



# Assessment & Grading

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## Evaluation [🔗](#)

- **Attendance (0 %):** No attendance score but F for absence of  $\frac{1}{3}$  classes.
- **Participation (20 %):** Points for active participation in some form, such as questioning and discussion during class.
- **Wrap-up QZ (30 %)**
- **PBL Score (50%)**
  - **Final score:** (강의자 점수 30 + 현장 평가 점수 70) x (동료 평가 가중치)

# Assessment & Grading

Rubric Grade Table for the Final Output (50)

	Logics (10)			Creativity (10)			Tools (10)			Presentation (10)			Communication (10)		
Grade	A	B	C	A	B	C	A	B	C	A	B	C	A	B	C
Score	10	9	8	10	9	8	10	9	8	10	9	8	10	9	8

Peer Review Weight (0.6-1)

Weight	0.6	0.7	0.8	0.9	1
Details	No cooperation	Some helps	Moderate	Good enough	Hard carry

- Team Score(50) = Score from instructor (50) X 0.3 + Score from Industry (50) X 0.7
- **Individual Score(50)** = Team Score(50) X Peer Review Weight(0.6-1)

# Communication

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## Notices & Questions

- Please join Kakao open-chat room
  - <https://open.kakao.com/o/giqvpYCf>



## Personal counsel (Scholarship, recommendation letter, etc.)

- CJ-counselling room (Anything but the class content)
  - CJ상담실: <https://open.kakao.com/o/s8zTrYCf>



**Any questions?**