



# 관광산업에 있어 인공지능(AI) 및 로봇서비스 기술 전개현황과 Open AI ChatGPT 이슈

2023. 4. 21.



한학진 | 한남대학교

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## 1. 인공지능(AI) 및 로봇서비스 등 4차 산업혁명 기술적인 전개

## 2. 환대 혹은 관광산업에 있어 인공지능(AI) 및 로봇서비스 기술도입 사례

가. 국내 사례

나. 해외사례: 일본 헨나호텔

1)호텔 개관

2)전반적 이미지(images), 가치추구(value pursuit) 설문조사 결과

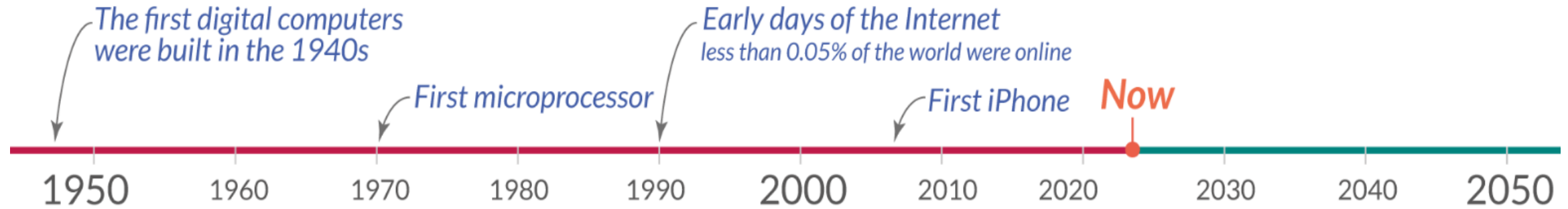
## 3. Open AI ChatGPT 활용

가. ChatGPT 개요

나. 환대 혹은 관광분야 적용에 따른 다양한 관점의 이슈

다. 관광분야 최근 이슈를 활용한 ChatGPT 시연 및 스몰데이터와 비교분석

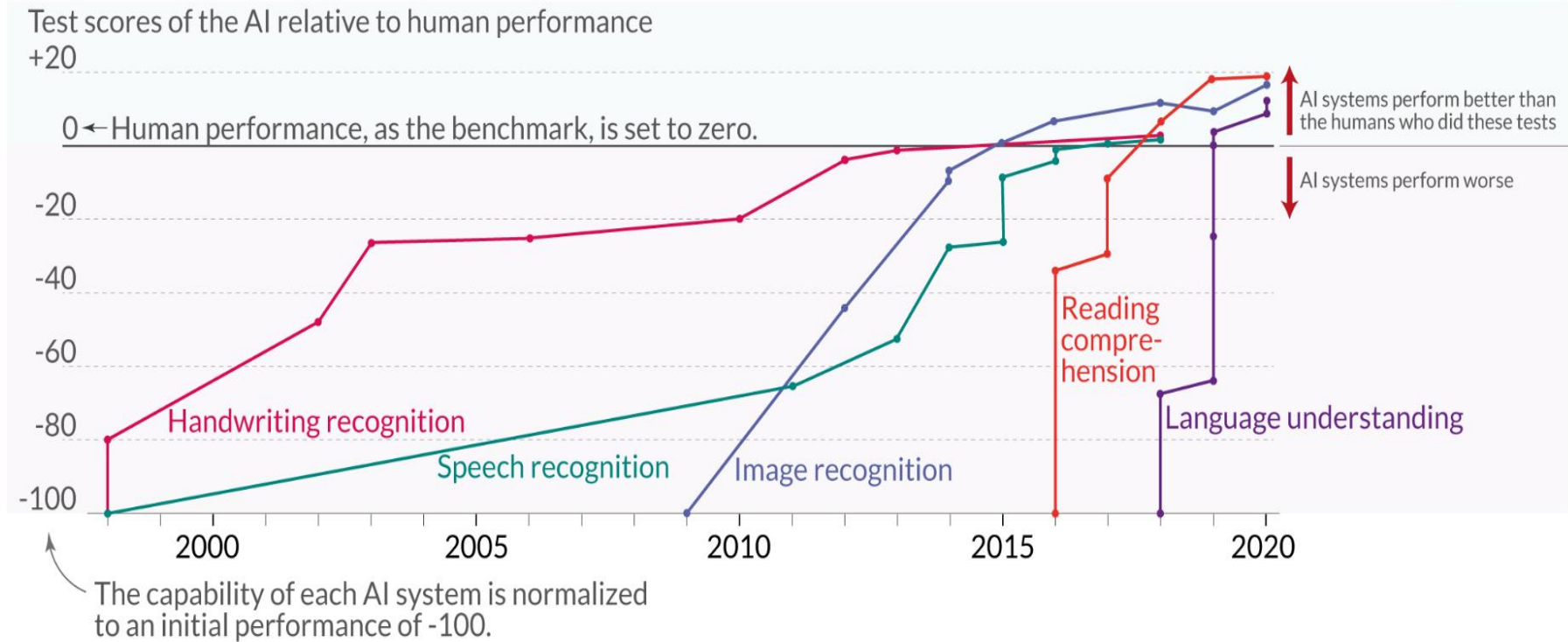
# The brief history of artificial intelligence: The world has changed fast – what might be next?



by [Max Roser](#)  
December 06, 2022

# Language and image recognition capabilities of AI systems have improved rapidly

Language and image recognition capabilities of AI systems have improved rapidly

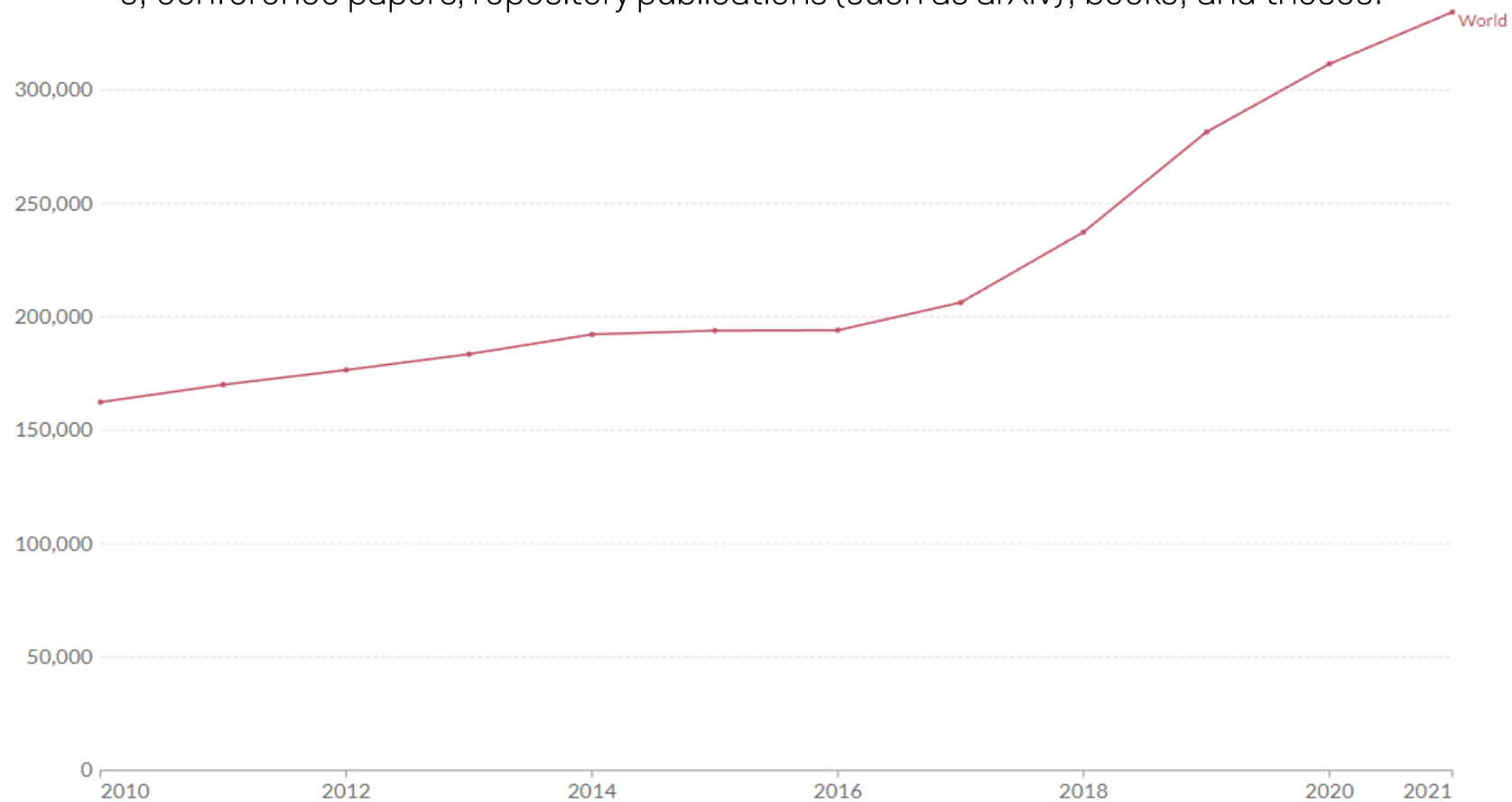


Data source: Kiela et al. (2021) – Dynabench: Rethinking Benchmarking in NLP  
OurWorldinData.org – Research and data to make progress against the world's largest problems.

Licensed under CC-BY by the author Max Roser

# Annual number of scholarly publications on artificial intelligence

English-language scholarly publications related to the development and application of AI. This includes journal articles, conference papers, repository publications (such as arXiv), books, and theses.



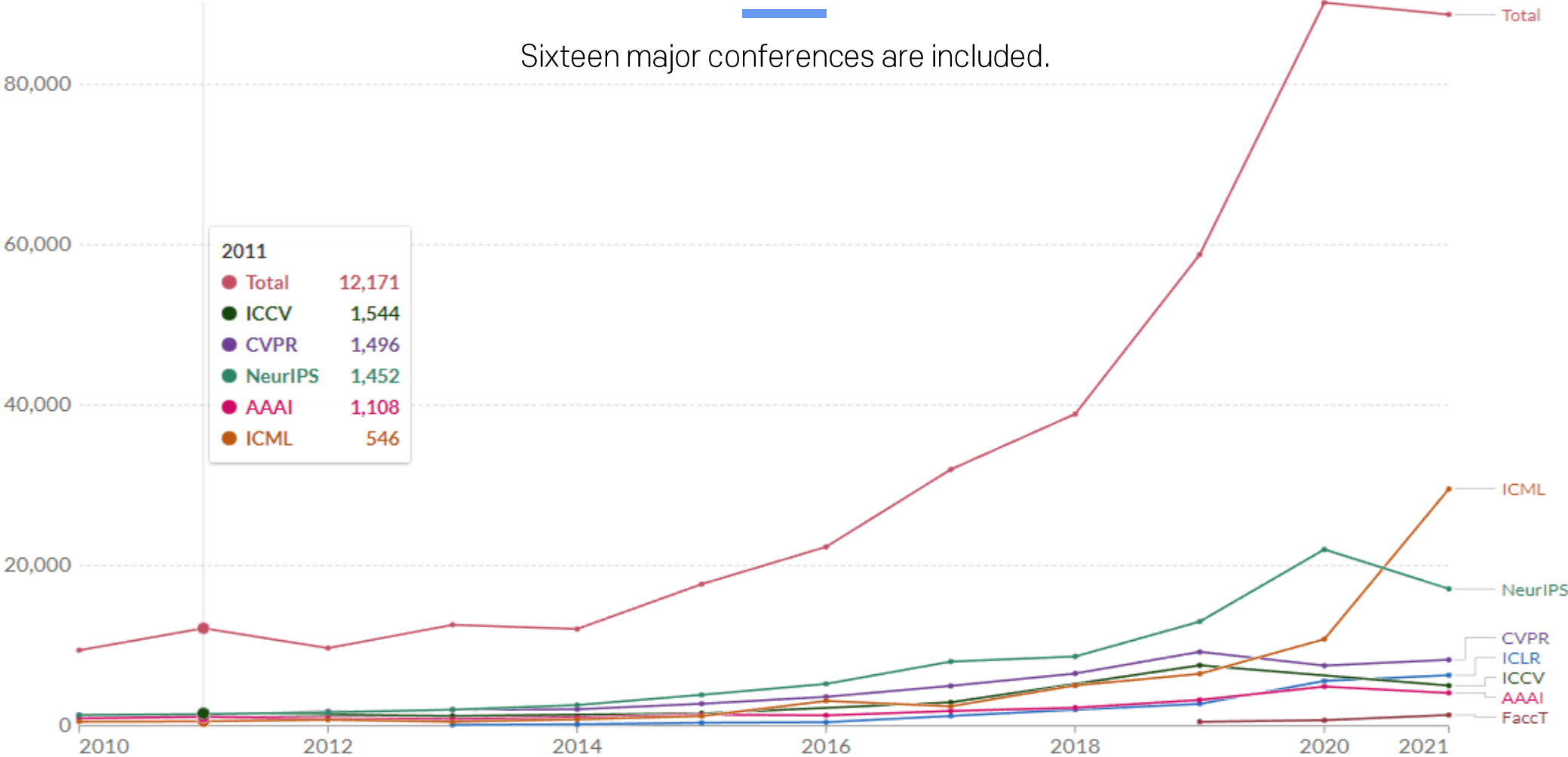
Source: Center for Security and Emerging Technology via AI Index Report (2022)  
Note: The reported number of publications in 2021 may be lower than the actual count due to lags in data collection.

OurWorldInData.org/artificial-intelligence • CC BY



# Annual attendance at major artificial intelligence conferences

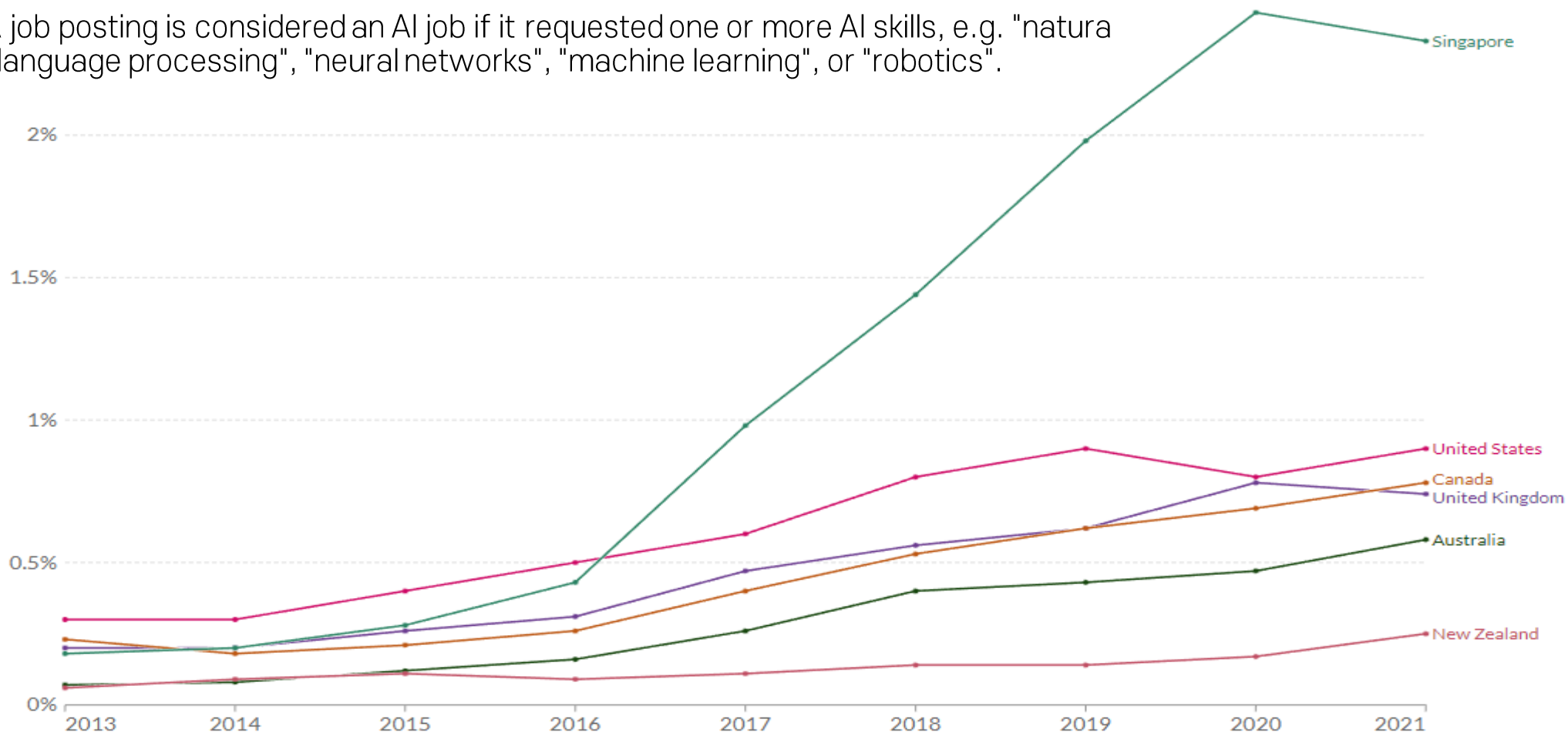
Sixteen major conferences are included.



Source: AI Index Report (2022)  
 Note: Most conferences in 2020-2021 were held virtually due to the COVID-19 pandemic.

# Share of artificial intelligence jobs among all job postings

A job posting is considered an AI job if it requested one or more AI skills, e.g. "natural language processing", "neural networks", "machine learning", or "robotics".



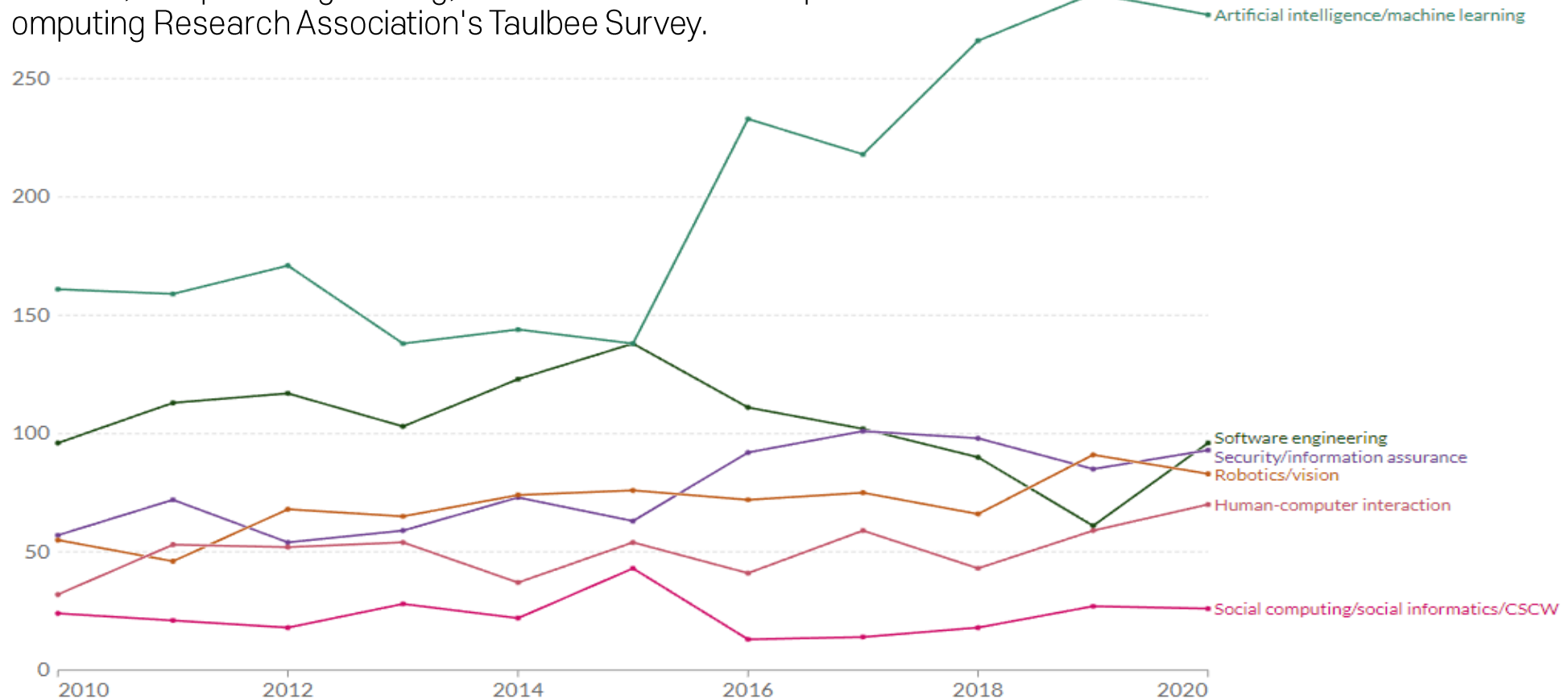
Source: Emsi Burning Glass via AI Index Report (2022)

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# Annual number of new computer science PhDs in the United States, by specialty

PhDs who graduated in the given year from academic units of computer science, computer engineering, and information that responded to the Computing Research Association's Taulbee Survey.



Source: Computing Research Association via AI Index Report (2022)

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Note: Since 2010, total response rates for the Taulbee Survey have ranged between 61–74%. This means that not every graduate is included, and the share who are varies from year to year.



# Where we are now: AI is here

AI across Airbus

## ASTARTES



## Autonomous flight



## CIMON



## Earth observation



## Factory of the Future



## Future Combat Air System (FCAS)

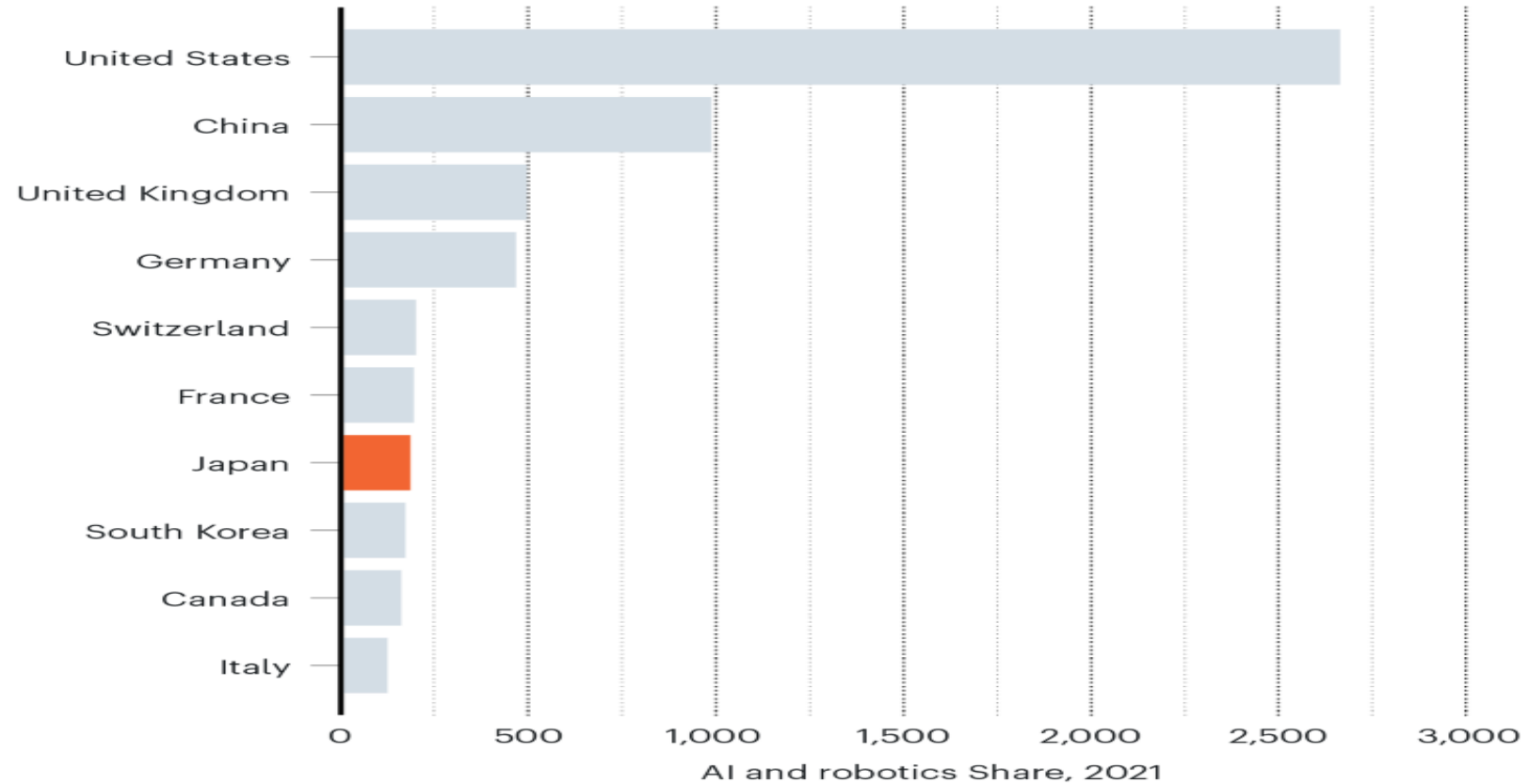


# 일본의 로봇공학은 인공지능(AI)이 전 세계적인 관심을 받으면서 뒤쳐짐

과거의 성공을 되살리기 위해, 해당 국가의 자동화 연구는 새롭게 초점을 맞추는 것이 필요

## AUTOMATION BOOM

Japan is lagging behind six other countries on its Share in artificial intelligence (AI) and robotics research tracked by the Nature Index, thanks to the huge growth in AI fields such as machine learning.



## 사례연구: 일본 헨나호텔

- ▶ 일본 나가사키 사세보에 소재하고 있는 헨나호텔은 2015년 7월15일에 세계최초 인공지능 및 로봇호텔로 기네스북 (2015. 7. 17)에 등록된 호텔
- ▶ 2018년 현재 당 호텔은 프론트에서의 체크인과 체크아웃을 비롯하여 호텔의 각종시설 및 정보안내, 수하물운반 및 보관, 카페, 실내외 냉난방조절, 지문인식 등의 전체직무의 50%정도가 인공지능과 로봇에 의해 운영
- ▶ 140여개의 객실과 부대 업장 운영에 약7-10명내외의 직원들이 인적서비스를 제공
- ▶ 직원들은 식당을 비롯하여 객실청소 및 호텔운영에 투입
- ▶ 개관 이후 객실점유율은 평균 75%이상을 유지하고 있으며, 시간이 흐름에 따라 80%대를 유지
- ▶ 호텔 이용객의 70%가 일본인인 것으로 분석







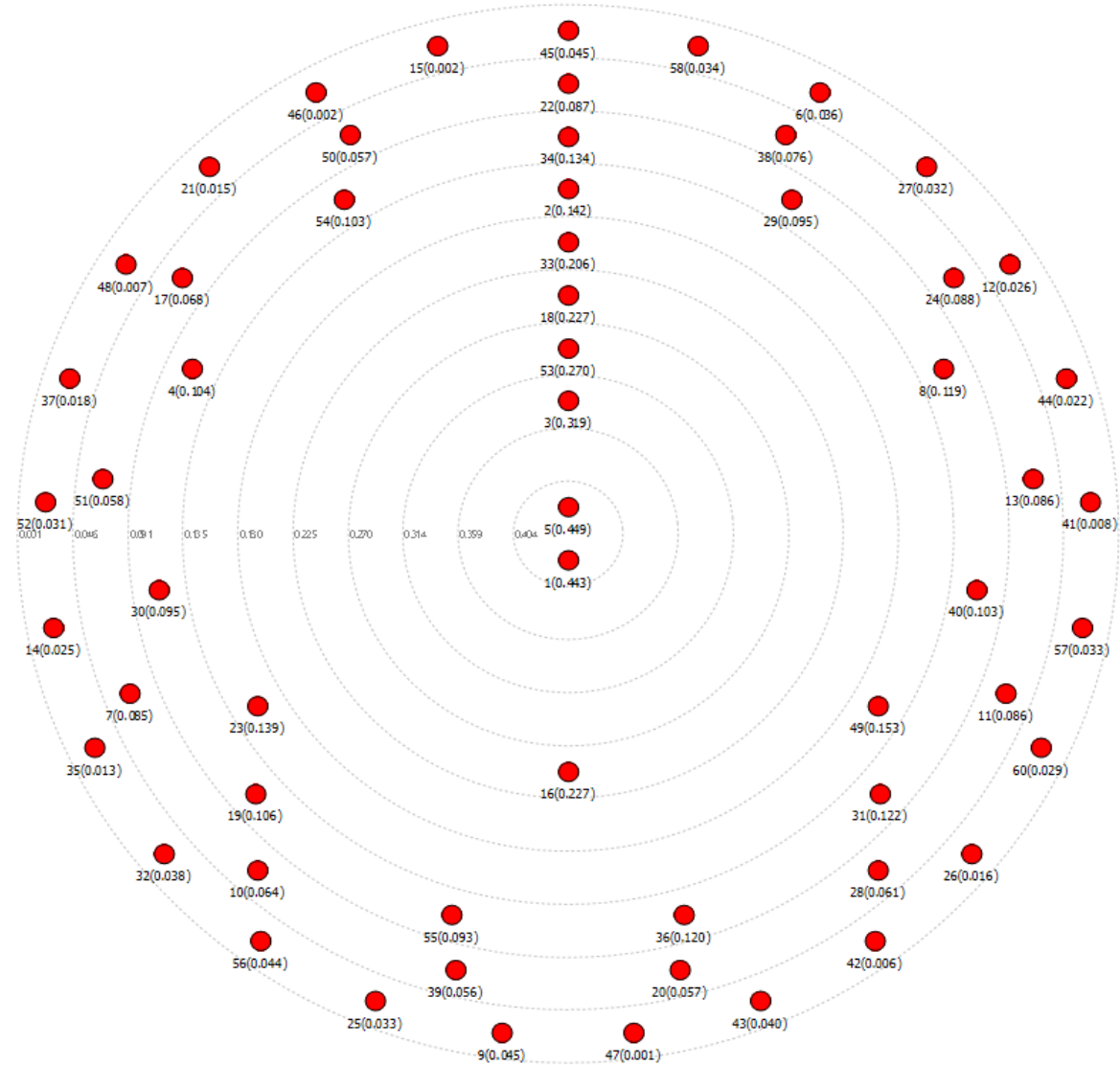
IV. 다음은 인공지능(AI) 이용과 관련한 사다리 기법의 절차입니다. 응답요령은 아래와 같습니다.

진행 절차	절차 1 : 인공지능(AI) 호텔 선택(이용) 시에 중요하게 생각한 ‘속성 5개’를 ‘1단계의 속성’의 번호에서 선택하여 표시(✓) 해 주세요. 절차 2 : 1단계의 ‘속성’을 통하여 얻을 수 있는 “혜택 혹은 결과”를 ‘2단계’에 있는 번호를 찾아 서로 연결해 주세요. 절차 3 : ‘혜택 혹은 결과’를 통해 궁극적으로 추구하고자 하는 것을 ‘3단계(가치)’에 있는 번호로 연결해 주세요. 중복연결이 가능합니다. [예 시: 다양한 객실 □ 1→ □ 8 차별화 된 서비스를 제공 한다 □ 8→ □ 1 자기만족] 궁금한 것이 있으시면 조사원에게 물어봐 주세요!
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※ 귀하께서 생각하는 헨나 호텔의 전반적인 서비스 만족도는? ① 매우 불만족 ② 불만족 ③ 보통 ④ 만족 ⑤ 매우만족

# 일본 헨나호텔 감정 연구



# 일본 헨나호텔 감정 연구

감정	ECV	감정	ECV	감정	ECV
1.깨끗하다	.400	2.친환경적이다	.142	3.흥미롭다	.319
4.특별하다	.104	5.신기하다	.449	6.빠르다	.036
7.간단하다	.085	8.편리하다	.119	9.기쁘다	.045
10.흥분 된다	.064	11.호감이 간다	.086	12.안전하다	.026
13.불편하다	.086	14.정확하다	.025	15.친절하다	.002
16.새롭다	.227	17.차별화 된다	.068	18.신선하다	.227
19.깔끔하다	.106	20.맛있다	.057	21.가깝다	.015
22.효율적이다	.087	23.인상적이다	.139	24.매력적이다	.088
25.저렴하다	.033	26.비싸다	.016	27.불친절하다	.032
28.경제적이다	.061	29.귀엽다	.095	30.쾌적하다	.095
31.편안하다	.122	32.아늑하다	.038	33.현대적이다	.206
34.스마트하다	.134	35.평온하다	.013	36.조용하다	.120
37.따뜻하다	.018	38.세련되다	.076	39.단순하다(절차)	.056
40.낮설다	.103	41.무시무시하다	.008	42.겁이 난다	.006
43.자유롭다	.040	44.느리다	.022	45.다양하다	.045
46.풍부하다	.002	47.괴상하다	.001	48.정중하다	.007
49.참신하다	.153	50.정교하다	.057	51.대단하다	.058
52.이상하다	.031	53.재미있다	.270	54.경의적이다	.103
55.너그럽다	.093	56.차분하다	.044	57.삭막하다	.033
58.정감이 없다	.034	59.혼잡스럽다	.000	60.기타	.029

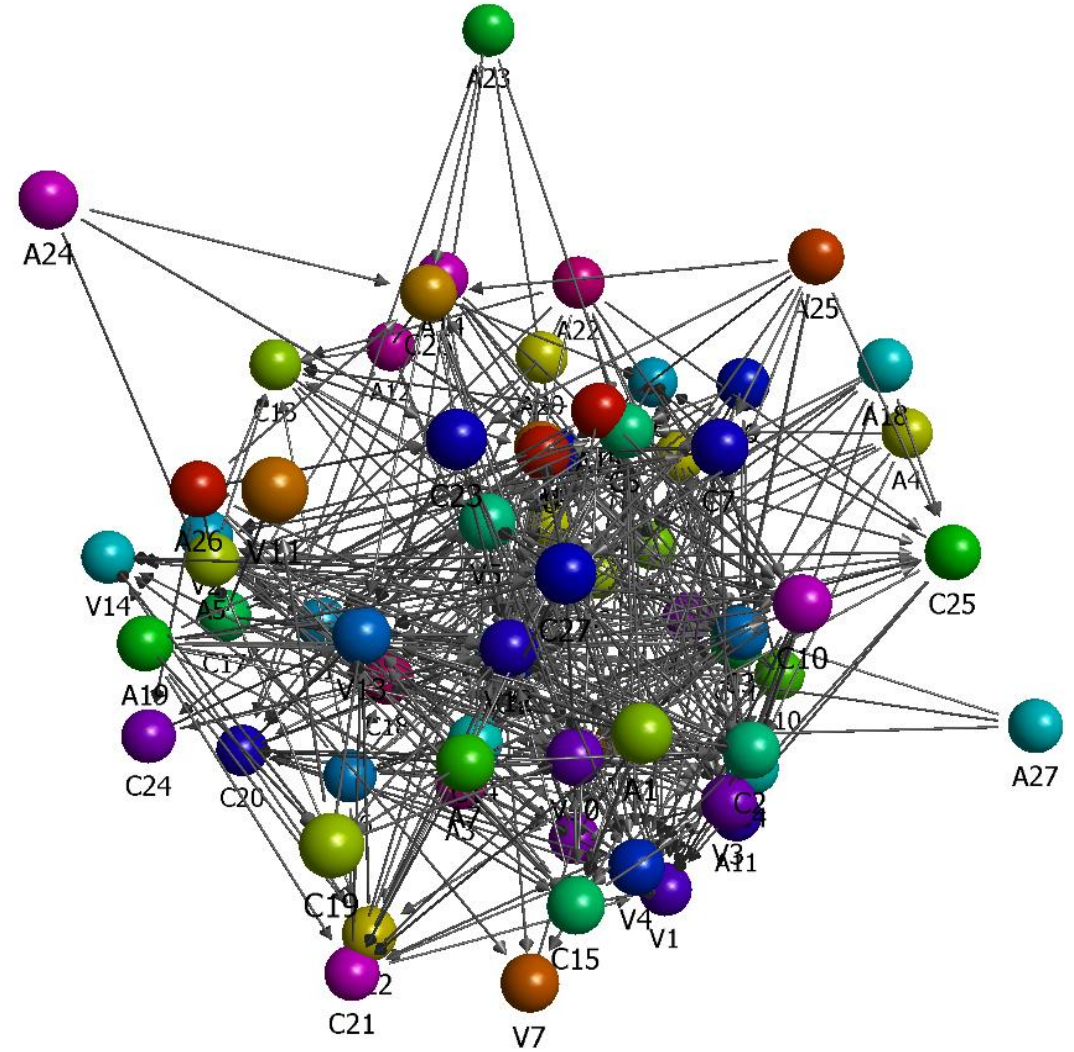
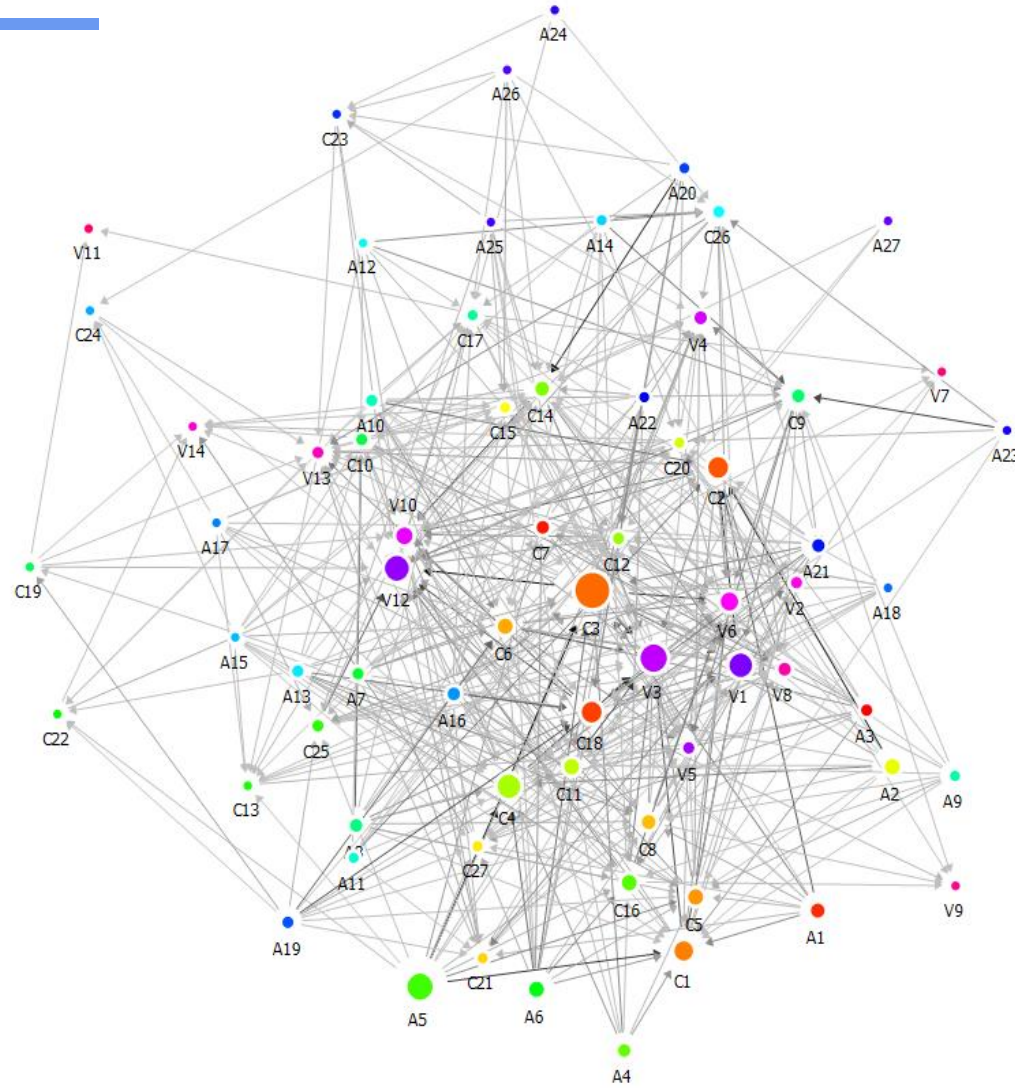




# 일본 헨나호텔 감정 연구

1단계:속성(A)	ECV	2단계:혜택혹은결과(C)	ECV	3단계:가치(V)	ECV
1. 다양한 객실	.102	1. 응대가 효율적이다	.196	1. 자기만족	.249
2. 주변 환경	.115	2. 깨끗하고 친화적이다	.210	2. 다른 여행일정에 집중	.054
3. 사람에 의한 서비스	.065	3. <b>신기한 경험을 하게 된다</b>	.443	3. <b>인간과 기계의 공존(협동)</b>	.321
4. 등록절차(고객등록카드 작성등)	.068	4. <b>신속하고 편리하다</b>	.256	4. 행복한 삶	.068
5. <b>로봇(프린트근무자)의 응대(체크인)</b>	.306	5. 기쁘고 흥분된다	.111	5. 마음의 평화	.065
6. <b>로봇의 안내정보</b>	.119	6. 안전한 서비스를 제공한다	.121	6. 즐거움과 재미	.177
7. 호텔의 제반시설	.055	7. 정확하고 친절하게 안내한다	.004	7. 성취감(자아실현)	.004
8. 호텔설비(에어콘, 자동소등등)	.073	8. 차별화 된 서비스를 제공한다	.094	8. 인간과 환경의 공존	.088
9. 호텔명성	.025	9. 신선하고 깔끔하며 맛있다	.087	9. 친구와 우애증진	.008
10. 객실관리(청소주기 등)	.051	10. 에너지 효율성이 증가된다	.054	10. 지속가능한 호텔경영	.134
11. 욕실관리	.029	11. 인공지능 기술에 대한 매력을 느낀다	.120	11. 가족사랑	.001
12. 식음료 서비스 제공 수준	.014	12. 호텔을 다시(재) 방문하게 된다	.066	12. <b>좋은 추억거리</b>	.288
13. 로봇(근무자)의 복장 및 용모	.060	13. 인간보다 나은 서비스를 제공받는다	.015	13. 자유스러움	.052
14. 식사(메뉴의 다양성)	.026	14. 비용이 저렴하여 경제적이다	.103	14. 기타	.009
15. 환송(배웅) 서비스	.014	15. 스스로가 해야 할 일이 많다	.030		
16. 호텔 컨셉 및 디자인	.086	16. 로봇의 응답 대화 및 내용이 귀엽다	.120		
17. 짐 보관(Cloakroom)	.019	17. 편안하고 아늑함을 느낀다	.035		
18. 포터 로봇	.019	18. <b>현대적이고 스마트하다</b>	.220		
19. 도어 록(ICKeyCard)/안면인식시스템	.064	19. 자유로운 출입이 제한된다	.012		
20. 호텔 비용 혹은 가격	.041	20. 조용한 분위기와 따뜻함을 느낀다	.032		
21. 호텔 이미지	.080	21. 세련된 디자인의 심플한 기능이 있다	.042		
22. 최신 기술 적용(피아노, 잔디깎기 기계 등)	.037	22. 낯설고 무시무시하여 겁이 난다	.018		
23. 뷔페 레스토랑	.021	23. 자유롭게 편리한 구매가 가능하다	.011		
24. 카페(Cafe)	.001	24. 다소 느리지만 무거운 짐을 옮겨준다	.005		
25. 자동판매기(Smart Kiosk)	.013	25. 최신의 자동화 시스템을 체험한다	.063		
26. 어메니티 스토어(Amenity Store)	.005	26. 메뉴가 다양하고 풍부하다	.047		
27. 기타	.007	27. 위급한 상황에서 도움을 받기 어렵다	.031		

# 일본 헨나호텔 감정 연구



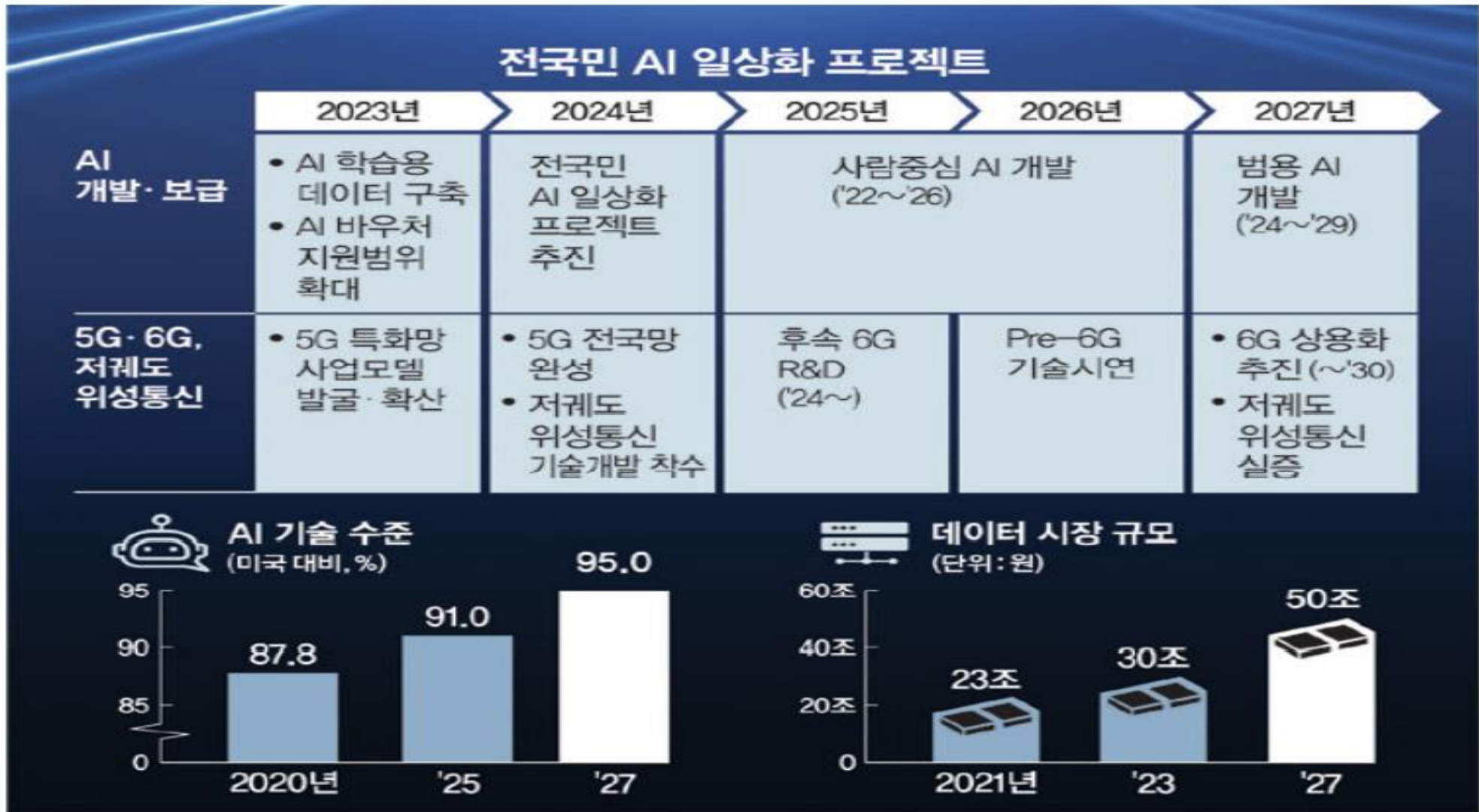
# Open AI ChatGPT





# 2023년 SW산업 10대 이슈 전망



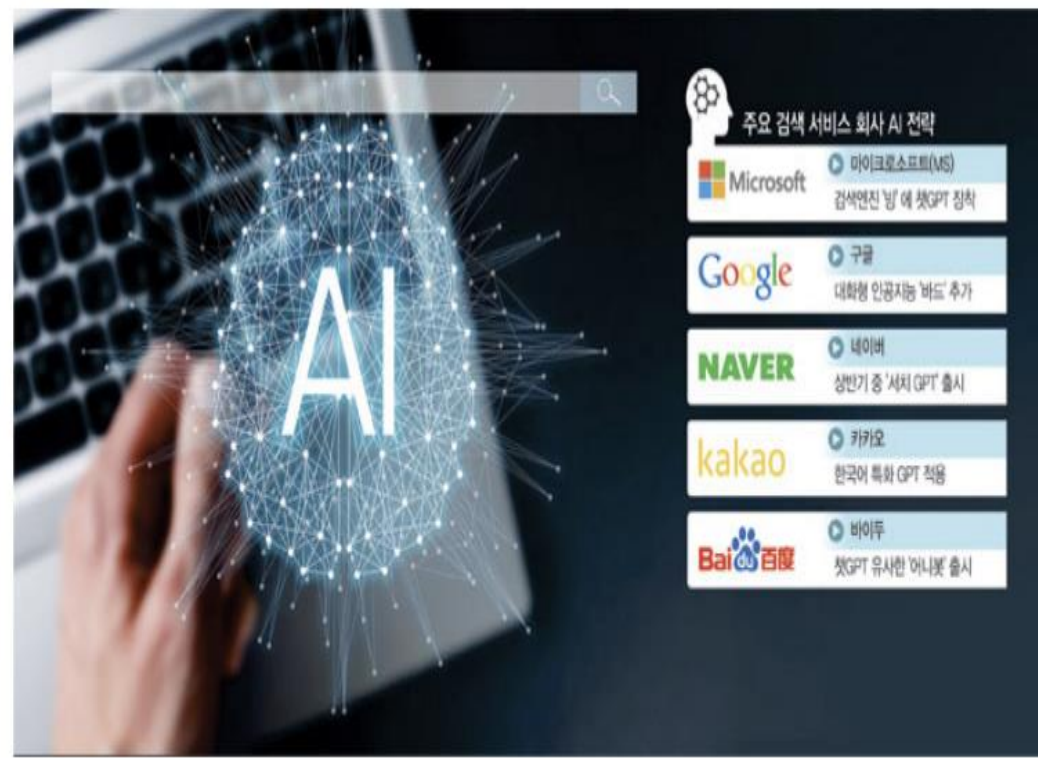


챗GPT '일상 대변혁'에... 부작용 최소화 저작권 손본다(문화일보)

# 챗GPT 업고 'AI 검색엔진' 출격



## MS "검색의 새 날 밝혔다" ... 챗GPT 업고 'AI 검색엔진' 출격





## ChatGPT와 기존 검색 엔진 간 차이점

구분	ChatGPT	검색 엔진
인공지능 기술	인공지능 기술인 언어 모델링을 사용하여 사용자 질문에 대한 답변 생성	키워드 검색을 통한 정보 제공
생성성	사용자 질문에 대해 새로운 정보를 생성하는 기능이 있어 기존 검색 엔진보다 더 생성적인 답변 제공	새로운 정보를 생성할 수 없음
상호작용	사용자 친화적인 상호작용을 통해 질문을 이해하고 대답하는 방식	키워드 검색을 통한 정보 제공으로 사용자와의 상호작용은 없음
질의 및 컨텍스트 이해도	자연어처리 기술을 통해 사용자 질문을 이해하여 의도에 맞는 결과를 제공하며, 사용자의 이전 질문을 기억하고 연관성을 고려하여 유연성 있게 답변	사용자 질문을 이해하고 답변하는 방식이 아닌 키워드 검색을 통한 정보 제공 방식으로 질문에 대한 답변을 제공하지 않으며 각 검색마다 독립적으로 정보를 제공*

\* 최근에는 검색 엔진도 인간의 언어를 더 잘 분석하고 이해할 수 있도록 자연어처리(NLP) 기반 알고리즘을 적용하며 진화 중

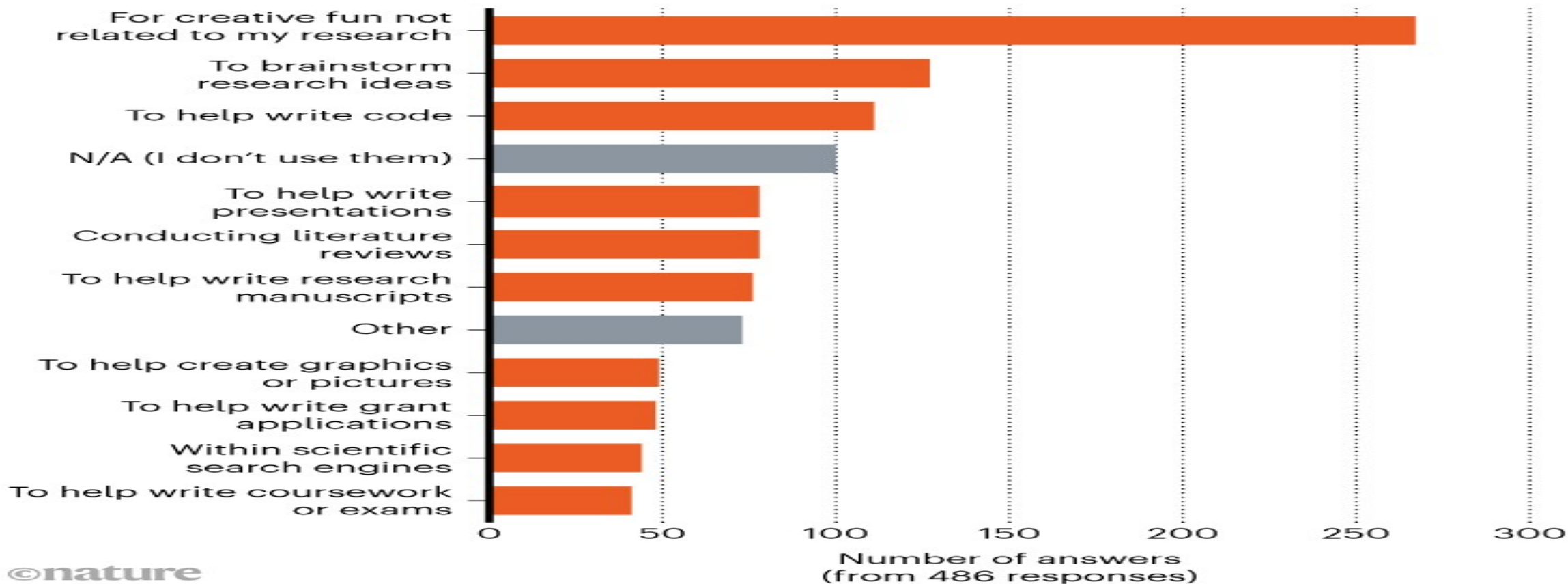
# CHATBOT USERS

Most survey respondents have tried generative artificial intelligence (AI) tools, and some said they use them to help with various research-related tasks.

**Q: How often do you use ChatGPT, GPT-3, DALL-E, MidJourney, Stable Diffusion, any other 'generative AI' tools, or products built using them?**



**Q: What do you use these tools for? (Choose all that apply).**



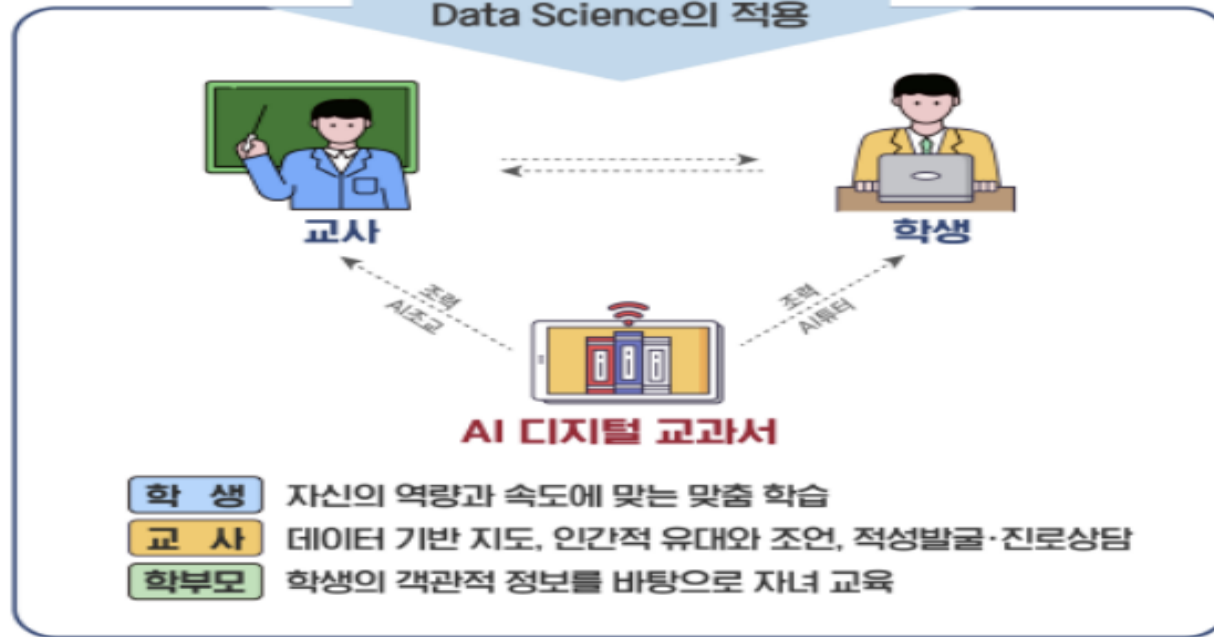


# ‘AI 디지털교과서’ 도입(교육부), ‘디지털 기반 교육혁신 방안’ 발표 (로봇신문)

## 디지털 시대 교실의 변화 모습



## 디지털 기술의 발전 Data Science의 적용



# ChatGPT의 활용 사례

## 논문작성

**medRxiv** THE PREPRINT SERVER FOR HEALTH SCIENCES

**ELSEVIER** Nurse Education in Practice Volume 66, January 2023, 103537

**Editorial**  
**Open artificial intelligence platforms in nursing education: Tools for academic progress or abuse?**

Siobhan O'Connor<sup>a</sup>, ChatGPT<sup>b</sup>

<sup>a</sup> Division of Nursing, Midwifery, and Social Work, The University of Manchester, Manchester, United Kingdom  
<sup>b</sup> OpenAI L.L.C., 3180 18th Street, San Francisco, CA 94110, USA

Available online 16 December 2022, Version of Record 20 December 2022.

**Performance of ChatGPT on USMLE: Potential for AI-Assisted Medical Education Using Large Language Models**

Tiffany H. Kung, Morgan Cheatham, ChatGPT, Arielle Medenilla, Czarina Sillas, Lorie De Leon, Camille Ebejano, Maria Madriaga, Rameel Aggabao, Gazel Diaz-Candido, James Maningo, Victor Tseng  
 doi: <https://doi.org/10.1101/2022.12.19.22283643>

This article is a preprint and has not been peer-reviewed [what does this mean?]. It reports new medical research that has yet to be evaluated and so should not be used to guide clinical practice.

## 언어 번역 및 교정

구분	내용
교정	<p>Could you correct the following? :</p> <p>I really study english hard, but it is always so much difficult. For your infomation, I is writing this email with an wrong grammer for purpose. Because I want to try and see how this machine correct my terrible writing. I am so look forward to see result.</p> <p>I have been studying English hard, but it is always so difficult. For your information, I am writing this email with incorrect grammar on purpose. Because I want to try and see how this machine corrects my terrible writing. I am looking forward to seeing the results.</p>
	<p>In the sentence "I really study english hard, but it is always so much difficult", there are a few grammatical errors:</p> <ul style="list-style-type: none"> <li>the word "english" should be capitalized, it should be "English"</li> <li>"so much" is not needed in this context, it should be "so"</li> <li>"difficult" should be "difficut"</li> </ul> <p>In the sentence "I is writing this email with an wrong grammer for purpose" there are a few grammatical errors:</p> <ul style="list-style-type: none"> <li>"is" should be "am"</li> <li>"writing" should be "writing"</li> <li>"an" is not needed in this context, it should be "with"</li> <li>"grammer" should be "grammar"</li> </ul> <p>In the sentence "I am so look forward to see result" there are a few grammatical errors:</p>

## ChatGPT를 통한 프로그래밍 예시

Could you generate code for machine learning in python?

Sure! Here is an example of a simple machine learning script in Python using the scikit-learn library for training a linear regression model on a dataset:

```

import numpy as np
from sklearn.linear_model import LinearRegression
from sklearn.metrics import mean_squared_error, r2_score
from sklearn.model_selection import train_test_split

# Generate synthetic data
np.random.seed(0)
X, y = np.random.rand(100, 1), np.random.rand(100, 1)

# Split the data into training and test sets
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.2)

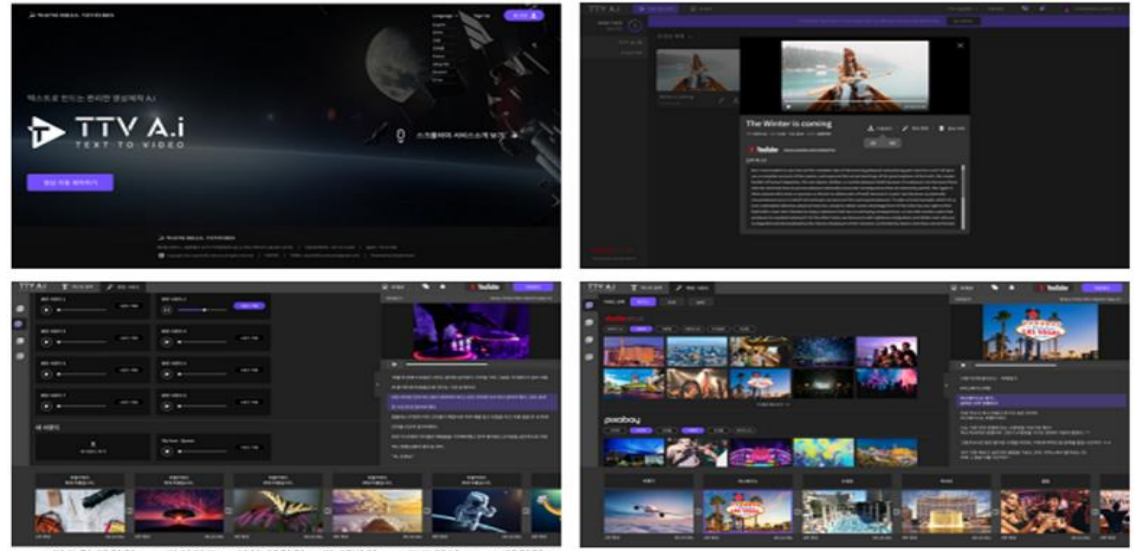
# Create and fit the linear regression model
model = LinearRegression()
model.fit(X_train, y_train)

# Make predictions on the test data
y_pred = model.predict(X_test)

# Evaluate the model's performance
mse = mean_squared_error(y_test, y_pred)
r2 = r2_score(y_test, y_pred)
print(f'Mean Squared Error: {mse:.4f}')
print(f'R^2 Score: {r2:.4f}')
    
```

# Timeline of images generated by artificial intelligence

From image recognition to image generation



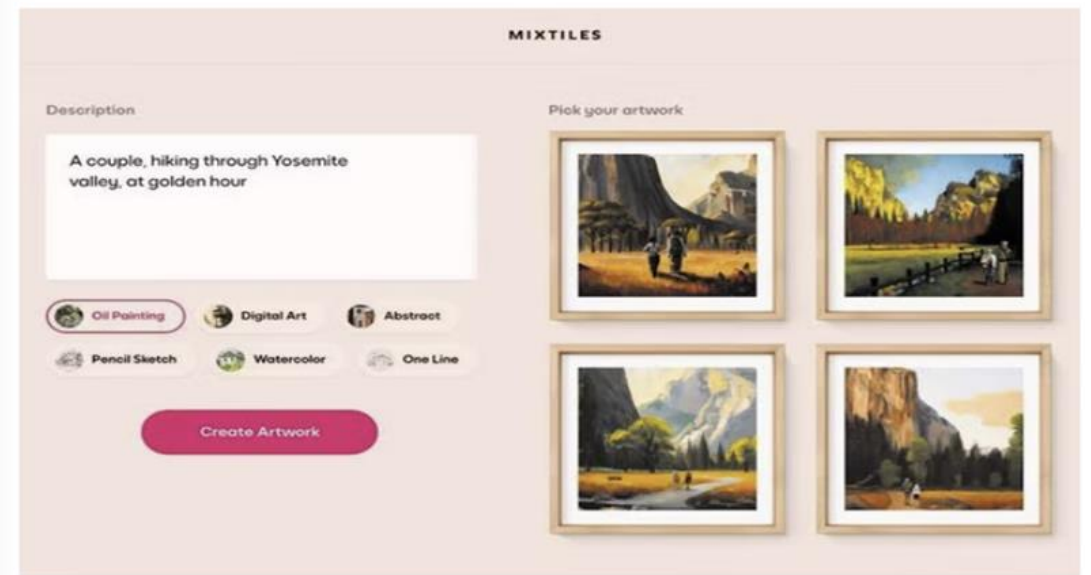
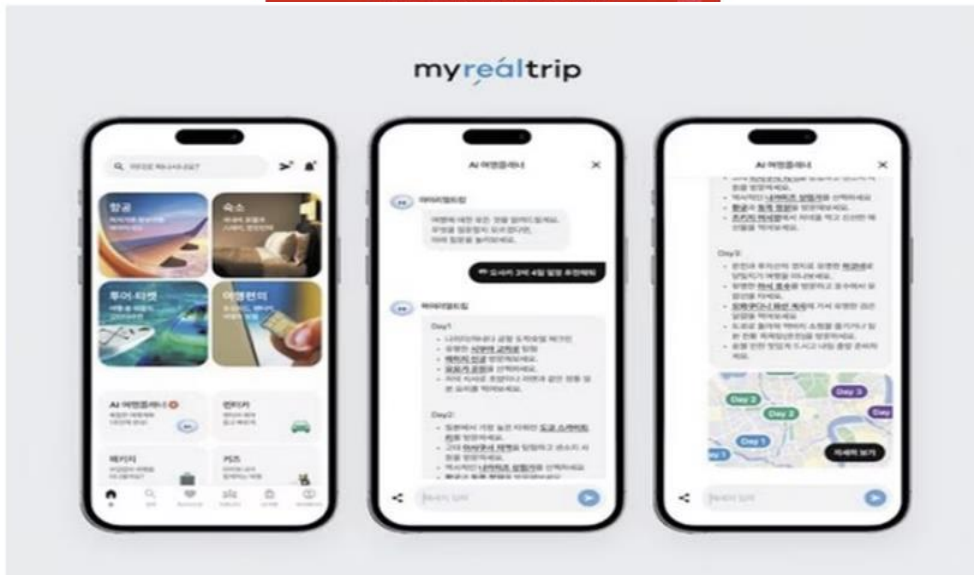
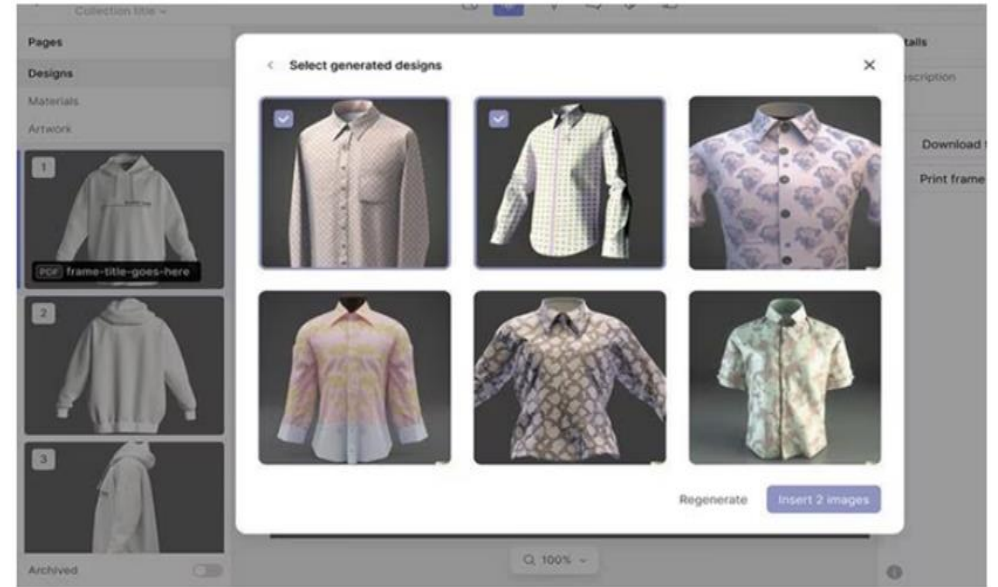
영어	한국어
<p>중간소름 사과를 씹 할때의 노래 가사로 만들어줘</p> <p>Verse 1: Listen up, I got a confession Been making noise, it's a transgression But it's not on purpose, I'm not a clown I'll keep it down, bring the noise level down</p> <p>Chorus: I know it's hard to sleep with the sound Of footsteps stomping on the ground But I'll do my best to make amends And keep the noise to a minimum</p> <p>Verse 2: I'll wear slippers, leave my kicks And I'll tiptoe, no more loud clicks TV volume low, phone on silent I'll make sure it's peaceful and quiet</p> <p>Chorus: I know it's hard to sleep with the sound Of footsteps stomping on the ground But I'll do my best to make amends And keep the noise to a minimum</p> <p>Outro: Sorry for the inconvenience I'll do my best to make it sense Quiet as a mouse, no more loudness So you can sleep with no fuss.</p>	<p>뒤 무장을 한국어로 번역해줘</p> <p>Verse 1: 들어봐, 내가 고백할게 소름을 만들어, 잘못이야 그러나 의도적이지 않아, 놀이문 아니야 조용히 할게, 소름 수준을 내릴게</p> <p>Chorus: 소리에 의해 잠을 잘 수 없다는 걸 알아 발걸음 소리가 울리지만 내가 노력할게, 소름 없는 일을 방지할게 소름을 최소화 할게</p> <p>Verse 2: 양말을 신고, 신발은 벗을게 발걸음을 신고, 소리를 최소화 할게 TV는 조용히, 폰은 무음 상태로 조용하게, 평온하게 할게</p> <p>Chorus: 소리에 의해 잠을 잘 수 없다는 걸 알아 발걸음 소리가 울리지만 내가 노력할게, 소름 없는 일을 방지할게 소름을 최소화 할게</p> <p>Outro: 불편을 끼쳐드려 죄송합니다 노력할게, 면하게 할게 새처럼 조용하게, 소름 없이 잠을 잘 수 있도록</p>



## 집필~편집 30시간... '슈퍼 작가 챗GPT 직접 쓴 책 나온다

'파파고'가 한글 번역... 22일 출간  
"짜깁기식 기획서적 속출할 수도"

입력 2023-02-20 04:08





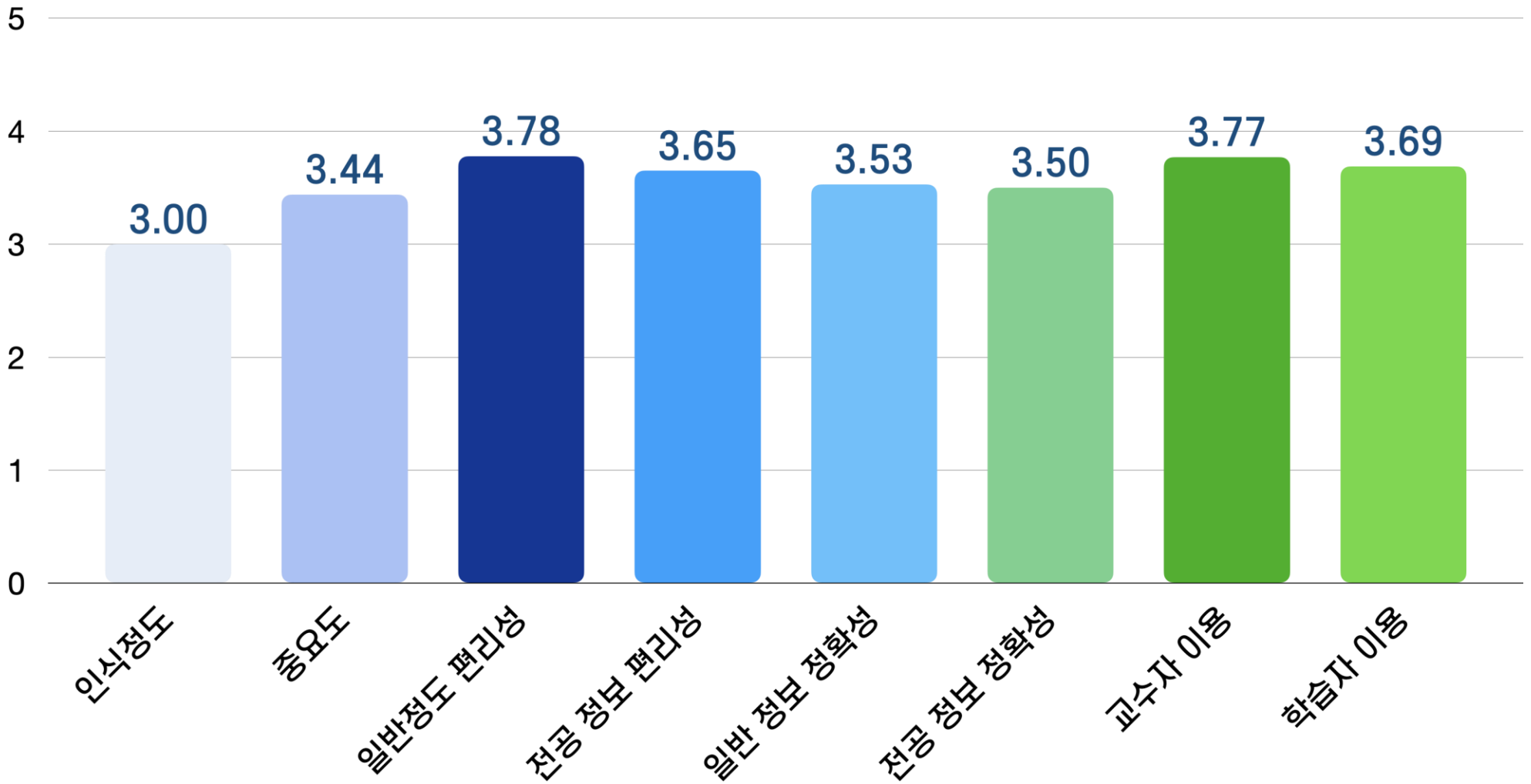
## MZ세대가 꿈은 미래 유망산업?



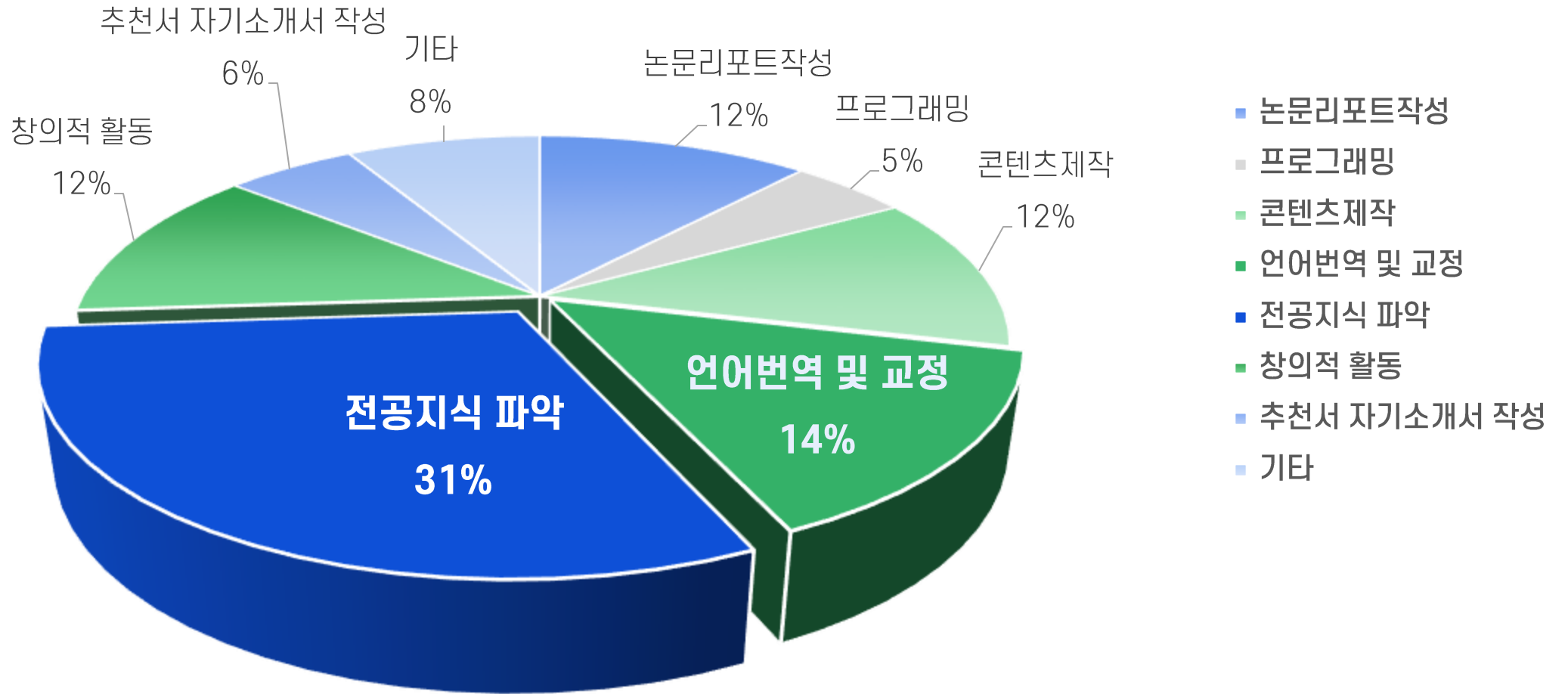
세대별 미래유망산업.(대한상공회의소 제공)

# MZ세대 대학생 ChatGPT 인식 및 활용도 분석결과



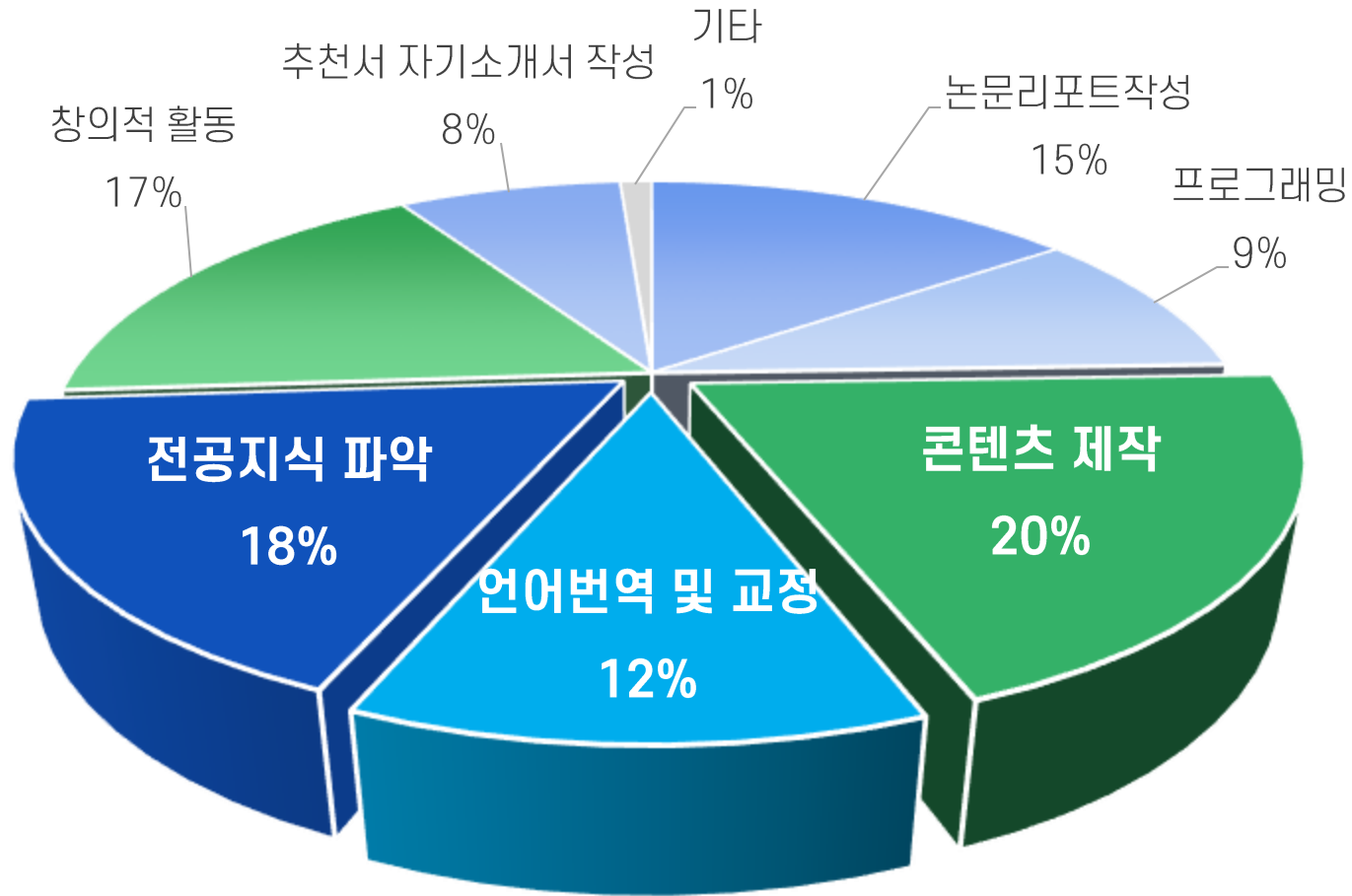


# 현재 활용분야



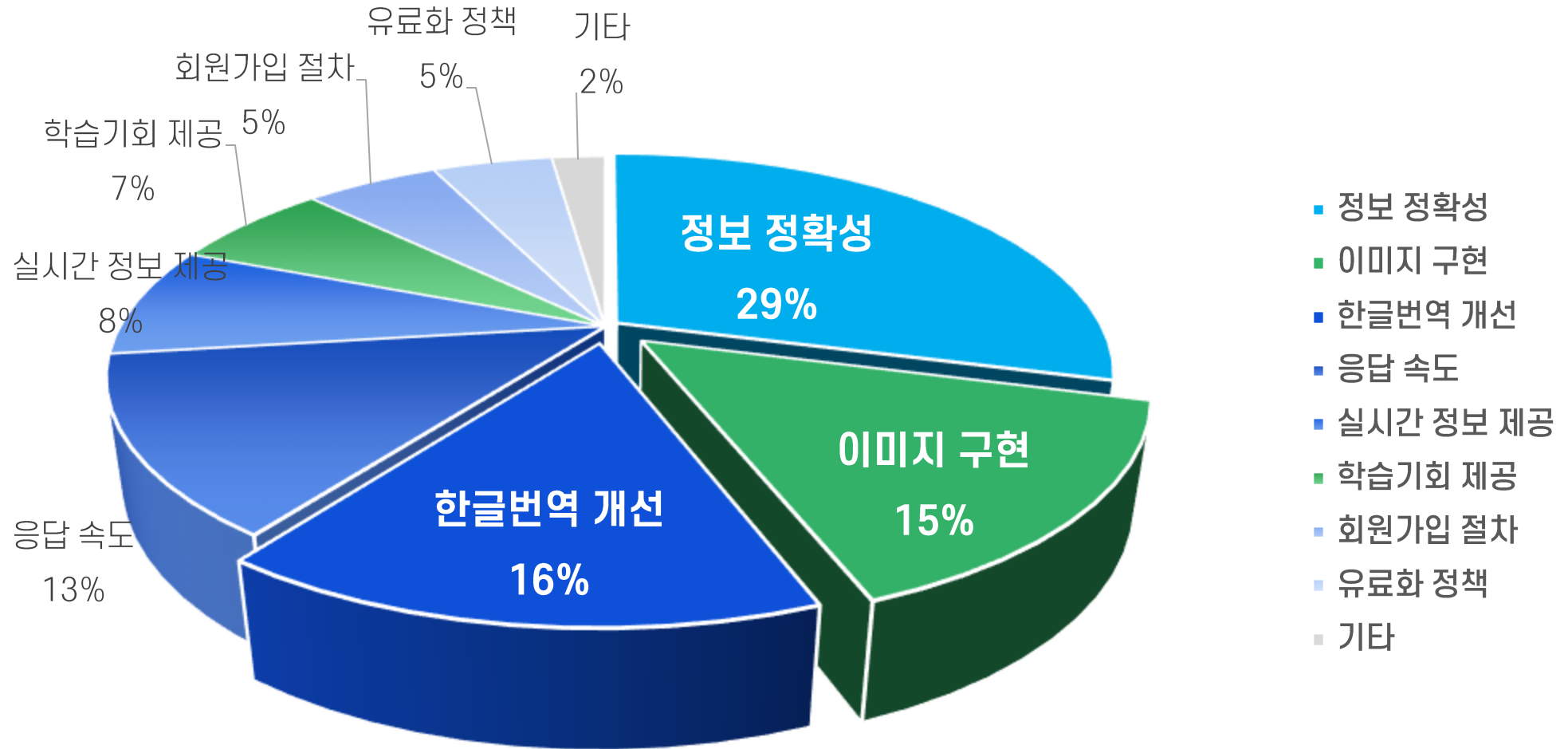


# 미래 활용분야



- 논문리포트작성
- 프로그래밍
- 콘텐츠 제작
- 언어번역 및 교정
- 전공지식 파악
- 창의적 활동
- 추천서 자기소개서 작성
- 기타

# 향후 개선 사항




# 관광 빅데이터를 활용한 인구감소 및 지역 소멸 극복방안

Open AI ChatGPT 분석자료를 중심으로



**MI** How important are local youth jobs and entrepreneurship support measures to overcome population decline and local extinction? Please rate the importance on a scale of 1 to 5.


 I would rate the importance of local youth jobs and entrepreneurship support measures to overcome population decline and local extinction as a 5 on a scale of 1 to 5.

Creating local jobs for youth and supporting entrepreneurship can have a significant impact on reversing population decline and preventing local extinction. By providing opportunities for young people to work and build businesses in their local communities, it can encourage them to stay and invest in the area. This can help to create a sustainable local economy, which can attract further investment and support.

Additionally, young people often bring new ideas and innovation to their communities, which can help to drive economic growth and development. Supporting entrepreneurship can help to nurture and develop these new ideas, which can have a positive impact on the wider community.

Overall, investing in local youth jobs and entrepreneurship support measures can help to create a positive cycle of growth and development, which can help to prevent population decline and local extinction. Therefore, I believe it is a very important strategy for sustaining and revitalizing communities.

**MI** How effective are local youth jobs and start-up support measures to overcome population decline and local extinction? Please rate effectiveness on a scale of 1 to 5.


 I would rate the effectiveness of local youth jobs and start-up support measures to overcome population decline and local extinction as a 4 on a scale of 1 to 5.

While creating local jobs for youth and supporting entrepreneurship can be an effective strategy for revitalizing communities, it may not be a silver bullet solution. Other factors, such as access to education and healthcare, infrastructure, and quality of life, may also play a significant role in reversing population decline and preventing local extinction.

However, investing in local youth jobs and start-up support measures can still have a significant impact on the local economy and community. By creating employment opportunities and encouraging entrepreneurship, it can help to retain and attract young people to the area, which can have a positive effect on the local population and economy.

Moreover, it is important to note that the effectiveness of these measures may depend on the specific context and the degree to which they are implemented. For example, if the jobs and support measures are not adequately promoted or if the infrastructure is not in place to support businesses, the impact may be limited.

**MI** To what extent is it important to support local youth jobs and start-ups to overcome population decline and regional extinction? Please give a score out of 1 to 5 points for importance.


 I would rate the importance of supporting local youth jobs and start-ups to overcome population decline and regional extinction as a 5 out of 5.

Supporting local youth jobs and start-ups is essential for reversing population decline and preventing regional extinction. Without job opportunities and economic growth, young people are likely to leave the area in search of better prospects elsewhere. This can lead to a decline in population and a loss of talent and energy from the region.

By creating local job opportunities and supporting entrepreneurship, young people are more likely to stay in the area and invest their time and resources in building a sustainable local economy. This can have a positive ripple effect, attracting further investment and development to the region.

Moreover, supporting local youth jobs and start-ups can help to foster a culture of innovation and creativity in the region. By encouraging young people to start their own businesses, it can lead to the development of new products and services that can drive economic growth and create new opportunities.

**MI** How effective are the local youth job and start-up support measures to overcome population decline and regional extinction? Please give a score out of 1 to 5 points for effectiveness.

 I would rate the effectiveness of local youth job and start-up support measures to overcome population decline and regional extinction as a 4 out of 5.

Creating local job opportunities for young people and supporting entrepreneurship can be a highly effective strategy for reversing population decline and regional extinction. By providing opportunities for young people to work and build businesses in their local communities, it can encourage them to stay and invest in the area, leading to sustainable economic growth and development.

However, the effectiveness of these measures can depend on several factors, such as the level of investment, the availability of resources, and the degree to which they are implemented. It is also important to consider that economic growth alone may not be sufficient to reverse population decline and regional extinction. Other factors, such as access to education, healthcare, and quality of life, may also play a significant role.

MI

How important is the hometown love donation measures to overcome population decline and regional extinction? Please rate the importance on a scale of 1 to 5.



I would rate the importance of hometown love donation measures to overcome population decline and regional extinction as a 2 out of 5.

While hometown love donation measures can be a way to encourage investment and support for local communities, they may not be a sustainable or effective solution for overcoming population decline and regional extinction.

The success of these measures may depend on several factors, such as the level of awareness and promotion, the amount of funding raised, and the efficiency of the allocation of the funds. It may also be difficult to attract widespread support and funding from outside the local community.

Additionally, hometown love donation measures may not address the underlying causes of population decline and regional extinction, such as a lack of job opportunities, declining infrastructure, or limited access to healthcare and education.

While hometown love donation measures can be a useful tool for raising awareness and encouraging support for local communities, they may not be a comprehensive or sustainable solution for reversing population decline and regional extinction. Other strategies, such as supporting local youth jobs and entrepreneurship, may be more effective in addressing the root causes. [Regenerate response](#)

MI

How effective is the hometown love donation measures to overcome population decline and regional extinction? Please rate effectiveness on a scale of 1 to 5.



I would rate the effectiveness of hometown love donation measures to overcome population decline and regional extinction as a 2 out of 5.

While hometown love donation measures can be a way to raise funds and support for local communities, they may not be a comprehensive or effective solution for overcoming population decline and regional extinction.

The success of these measures may depend on several factors, such as the level of awareness and promotion, the amount of funding raised, and the efficiency of the allocation of the funds. It may also be difficult to attract widespread support and funding from outside the local community.

Moreover, hometown love donation measures may not address the underlying causes of population decline and regional extinction, such as a lack of job opportunities, declining infrastructure, or limited access to healthcare and education.

While hometown love donation measures can be a useful tool for raising awareness and generating support for local communities, they may not be enough to create sustainable economic growth and development. Other strategies, such as investing in local youth jobs and entrepreneurship or improving access to education and healthcare, may be more effective in addressing the root causes. [Regenerate response](#)

MI

To what extent is the hometown love donation measures important to overcome population decline and local extinction? Please give a score out of 1 to 5 points for importance.



I would rate the importance of hometown love donation measures to overcome population decline and local extinction as a 2 out of 5.

While hometown love donation measures can be a way to raise funds and support for local communities, they may not be a comprehensive or effective solution for overcoming population decline and local extinction.

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MI

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While hometown love donation measures can be a useful tool for raising awareness and generating support for local communities, they may not be enough to create sustainable economic growth and development. Other strategies, such as investing in local youth jobs and entrepreneurship or improving access to education and healthcare, may be more effective in addressing the root causes. [Regenerate response](#)



MI How important is the operation of the workation program to overcome population decline and regional extinction? Please rate the importance on a scale of 1 to 5.

I would rate the importance of the workation program to overcome population decline and regional extinction as a 4 out of 5.

Workation programs can be an effective way to attract remote workers or entrepreneurs to a region and stimulate economic growth. By providing a temporary workspace and community engagement opportunities, workation programs can help showcase the unique benefits and opportunities of a region, and encourage participants to consider relocating or investing in the local community.

Additionally, workation programs can provide opportunities for knowledge-sharing and collaboration among local entrepreneurs and remote workers, which can help to create new business ventures and stimulate innovation.

However, the success of a workation program may depend on several factors, such as the quality of the workspace, the level of community engagement and support, and the availability of resources and amenities. Workation programs may also need to be accompanied by other strategies, such as investment in local infrastructure and job creation, to ensure long-term economic growth and sustainability.

MI How effective are workation program to overcome population decline and regional disappearance? Please rate effectiveness on a scale of 1 to 5.

I would rate the effectiveness of workation programs to overcome population decline and regional disappearance as a 3 out of 5.

Workation programs can be effective in attracting remote workers and entrepreneurs to a region, promoting economic growth, and showcasing the unique benefits of a region. By providing temporary workspaces and community engagement opportunities, workation programs can help stimulate innovation and collaboration among local entrepreneurs and remote workers.

However, the success of a workation program may depend on several factors, such as the quality of the workspace, the level of community engagement and support, and the availability of resources and amenities. Workation programs may also need to be accompanied by other strategies, such as investment in local infrastructure and job creation, to ensure long-term economic growth and sustainability.

Furthermore, workation programs may not address underlying issues such as a lack of job opportunities, declining infrastructure, or limited access to healthcare and education. Therefore, while workation programs can be a useful tool for promoting economic growth, they may not be enough to address the root causes of population decline and regional disappearance. [Regenerate response](#)

MI To what extent is it important to operate a workation program to overcome population decline and regional extinction? Please give a score out of 1 to 5 points for importance.

I would rate the importance of operating a workation program to overcome population decline and regional extinction as a 3 out of 5.

Workation programs can be an important tool for attracting remote workers and entrepreneurs to a region, promoting economic growth, and showcasing the unique benefits of a region. By providing temporary workspaces and community engagement opportunities, workation programs can help stimulate innovation and collaboration among local entrepreneurs and remote workers.

However, the success of a workation program may depend on several factors, such as the quality of the workspace, the level of community engagement and support, and the availability of resources and amenities. Workation programs may also need to be accompanied by other strategies, such as investment in local infrastructure and job creation, to ensure long-term economic growth and sustainability.

Furthermore, workation programs may not address underlying issues such as a lack of job opportunities, declining infrastructure, or limited access to healthcare and education. Therefore, while workation programs can be an important component of a broader strategy to address population decline and regional extinction, they may not be enough to solve the problem on their own. [Regenerate response](#)

MI How effective is the operation of the workation program to overcome population decline and regional extinction? Please give a score out of 1 to 5 points for effectiveness.

I would rate the effectiveness of operating a workation program to overcome population decline and regional extinction as a 3 out of 5.

Workation programs can be effective in attracting remote workers and entrepreneurs to a region, promoting economic growth, and showcasing the unique benefits of a region. By providing temporary workspaces and community engagement opportunities, workation programs can help stimulate innovation and collaboration among local entrepreneurs and remote workers.

However, the success of a workation program may depend on several factors, such as the quality of the workspace, the level of community engagement and support, and the availability of resources and amenities. Workation programs may also need to be accompanied by other strategies, such as investment in local infrastructure and job creation, to ensure long-term economic growth and sustainability.

Furthermore, workation programs may not address underlying issues such as a lack of job opportunities, declining infrastructure, or limited access to healthcare and education. Therefore, while workation programs can be an effective tool for promoting economic growth and attracting new residents, they may be limited without additional measures to address underlying issues and promote long-term sustainability. [Regenerate response](#)

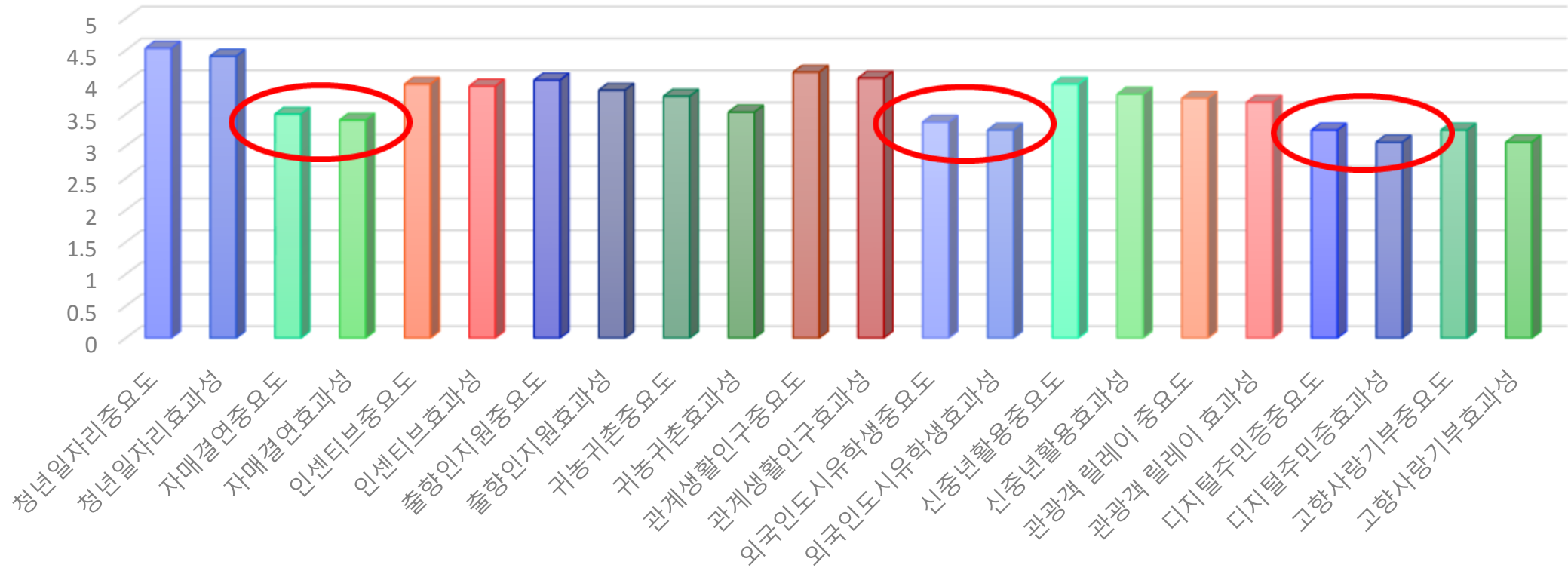
## 콘텐츠 발굴 및 관광 상품개발 분야 주요 항목(예)

세부 문항	중요도					효과성				
	매우 부정 ↔ 매우 긍정					매우 부정 ↔ 매우 긍정				
	①	②	③	④	⑤	①	②	③	④	⑤
1) 지방에서 일주일(한 달) 살기			3					3		
2) 장기체류프로그램(스테이케이션, 워케이션 등) 발굴				4					4	
3) 농산어촌체험 프로그램 확대(촌캉스 등)				4					4	
4) 워킹 홀리데이인 로컬(in local): 신개념 농촌 봉사활동				4					4	
5) (세대 간)마을 공동체사업					5				4	
6) 소규모 이벤트 및 계절별 축제				4					4	
7) 관광두레 활성화					5				4	
8) 종교시설 및 순례길 프로그램			3						4	
9) 숲(힐링, 치유) 프로그램			3						4	
10) 스포츠 케이션(스포츠 활동 및 전지훈련 프로그램 등)			3					3		
11) 프리미엄 콘텐츠(백년가게 등) 개발 및 스토리텔링				4					4	

# MZ세대 인식조사

## 가. 정책개발 및 행정적 지원분야 분석결과

정책개발 및 행정적 지원분야(n=32)

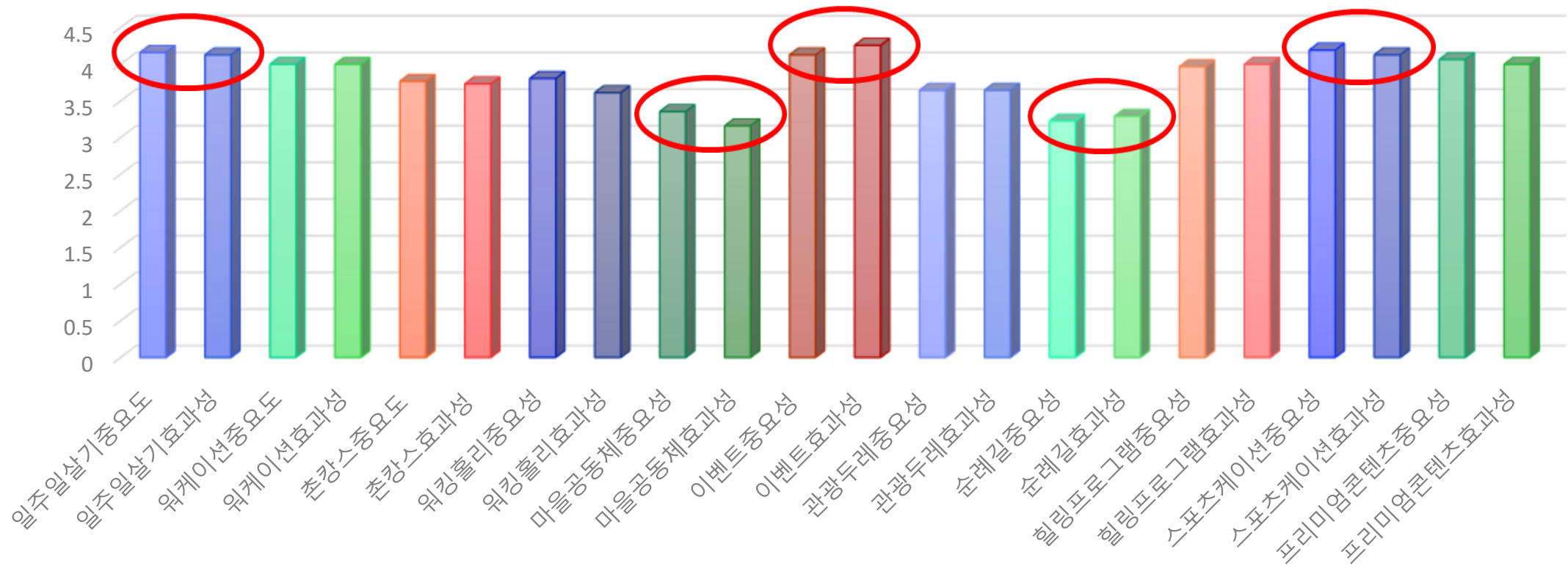




# MZ세대 인식조사

## 나. 콘텐츠발굴 및 관광상품개발 분석결과

콘텐츠발굴 및 관광상품개발(n=32)



# 참고자료

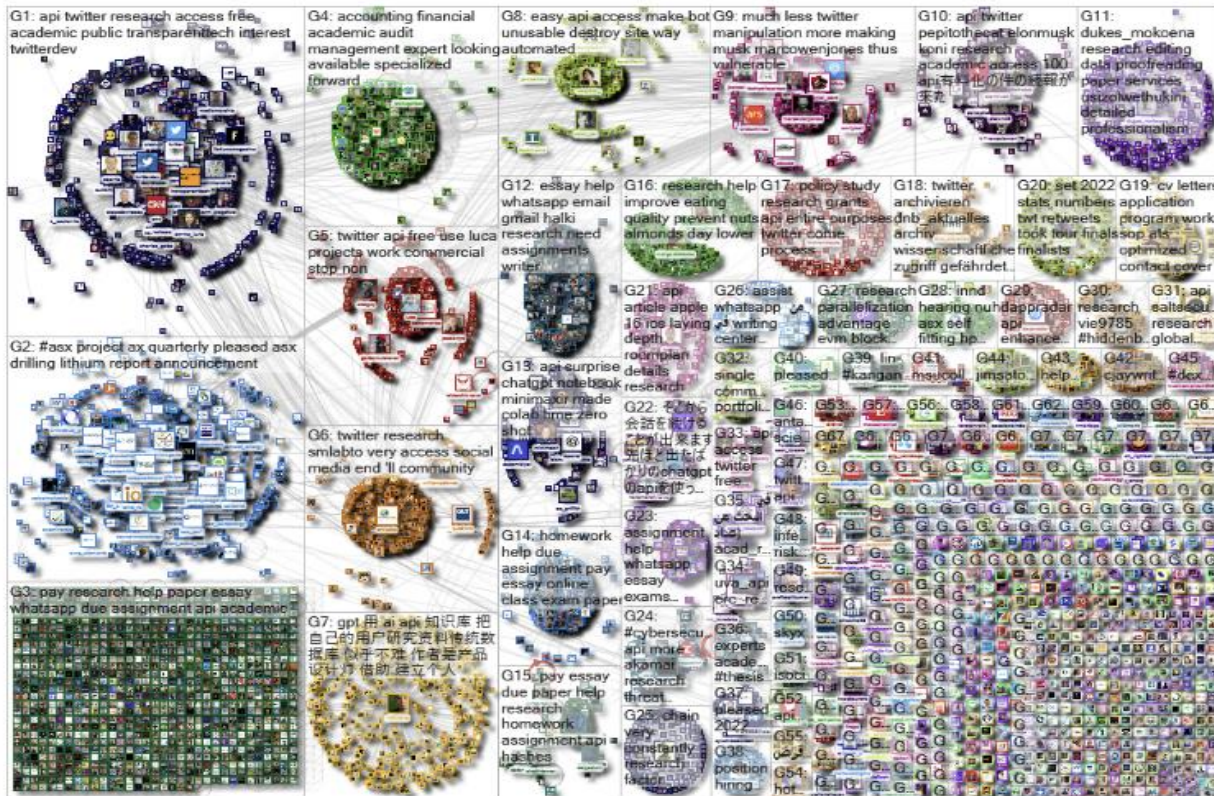






News & updates from the Social Media Research Foundation - 2023 - 1

### Featured NodeXL Network



# NODE ACADEMY

## Social Media Research Summer School

### Jul 31 - Aug 04, 2023

**5-day online event: expert talks + tutorials + 1-on-1 sessions**

**Learn to analyze, visualize and understand networks**

**Boost your research project with network insights**

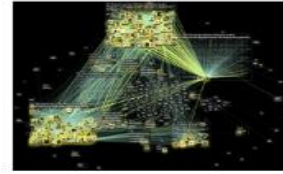
*No previous knowledge required*

A project from the socialmedia RESEARCH FOUNDATION

### NodeXL Pro Data Recipes

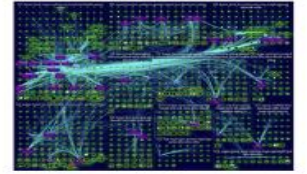
#### Twitter Data Recipes

Create a complete social network and content analysis with the NodeXL Pro Twitter network importers. Click here for NodeXL Pro Twitter Data Recipes that can be used to automate your analysis of Twitter network data.



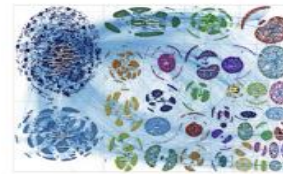
#### YouTube Data Recipes

Create user network and video network analyses with the NodeXL Pro Youtube network importer. Click here for Youtube data recipes that can be used to automate your analysis of Youtube network data.



#### Wikipedia Data Recipes

Create Wikipedia article network as well as user network analyses with the NodeXL Pro MediaWiki network importer. Click here for Wikipedia data recipes that can be used to automate your analysis of Wikipedia network data.



#### Flickr Data Recipes

Create user network and tag network analyses with the NodeXL Pro Flickr network importers. Click here for Flickr data recipes that can be used to automate your analysis of flickr network data.





함께 만드는 빅데이터  
함께 누리는 가치  
data · insight · value



교육실습콘텐츠



교육 및 세미나



인프라신청



데이터셋



결합지원센터



센터소개

공지사항



- [안내] 2023년 K-ICT 빅데이터센터 상반기... 2023-03-14
- [안내] 빅데이터서비스팀 사업 관련 간담회... 2023-03-08
- [안내] K-ICT 빅데이터센터 2023년도 3월 ... 2023-03-06
- [안내] 23년도 클라우드 기반 데이터 분석... 2023-03-03
- [뉴스레터] K-ICT 빅데이터센터 뉴스레터 ... 2023-03-02
- [뉴스레터] K-ICT 빅데이터센터 뉴스레터 ... 2023-02-02

교육 및 세미나



- [2023년 4월] 분석인프라활용 AI (온라인 ... 2023-04-11
- [2023년 4월] 분석인프라활용AI 이론[온라... 2023-04-10
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SPRi AI BRIEF

# 인공지능의 최신 동향

AI브리프 보기

연구

참여

[이슈리포트] 초거대언어모델의 부상과 주요이슈 - ChatGPT의 기술적 특징과...

[컨퍼런스] 2023 SW산업전망 컨퍼런스

[SPRi 칼럼] 개방형 혁신과 글로벌 SaaS 기업으로의 도약

[포럼] 디지털주권과 플랫폼형 SaaS

[SPRi 칼럼] '디지털 플랫폼 정부'의 방향, 집합적 임팩트(Collective Impact)...

[컨퍼런스] ETRI Open Source Tech Day 2022



# 사이람 온라인 교육 센터

사이람 온라인 교육 센터에서 NetMiner를 이용한 소셜 네트워크 분석,  
각종 소셜 빅데이터를 분석할 수 있는 빅데이터 분석 방법을 익혀보세요

CYRAM E-LEARNING

스스로 학습하기 어려운 데이터 분석,  
누구도 디테일하게 가르쳐 주지 않는 분석방법론


**사이람 이러닝을 통해 해결하세요**





#파이썬 초보 환영  
#나만의 수집기 만들기  
#SNA #머신러닝

# 파이썬을 활용한 소셜 빅데이터 분석




Python을 활용한 소셜 빅데이터 분석  
교육기간 : 90일

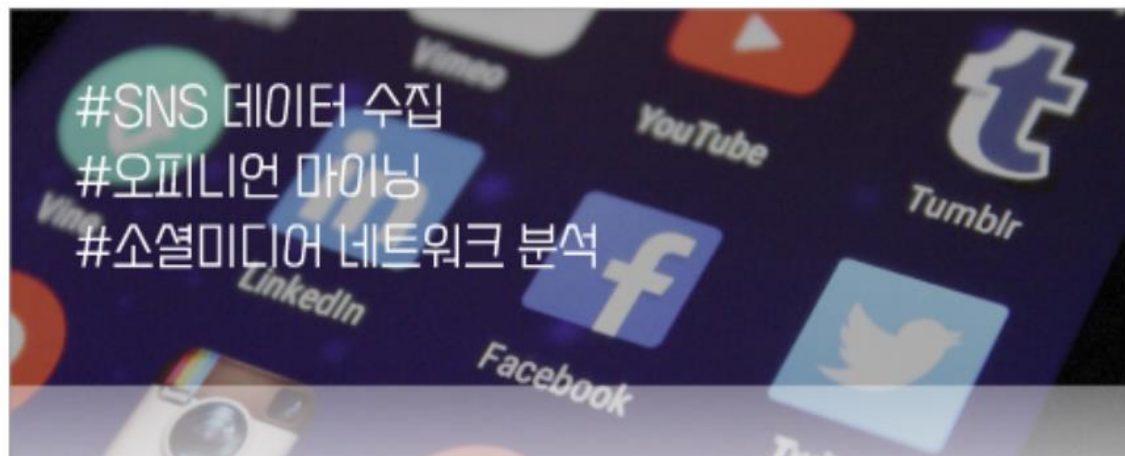
# NetMiner를 이용한 텍스트 네트워크 분석

#쉬운\_텍스트마이닝  
#단어 네트워크 분석  
#워드클라우드  
#토픽 나누기



NetMiner를 이용한 텍스트 네트워크 분석  
교육기간 : 29일

#SNS 데이터 수집  
#오피니언 마이닝  
#소셜미디어 네트워크 분석



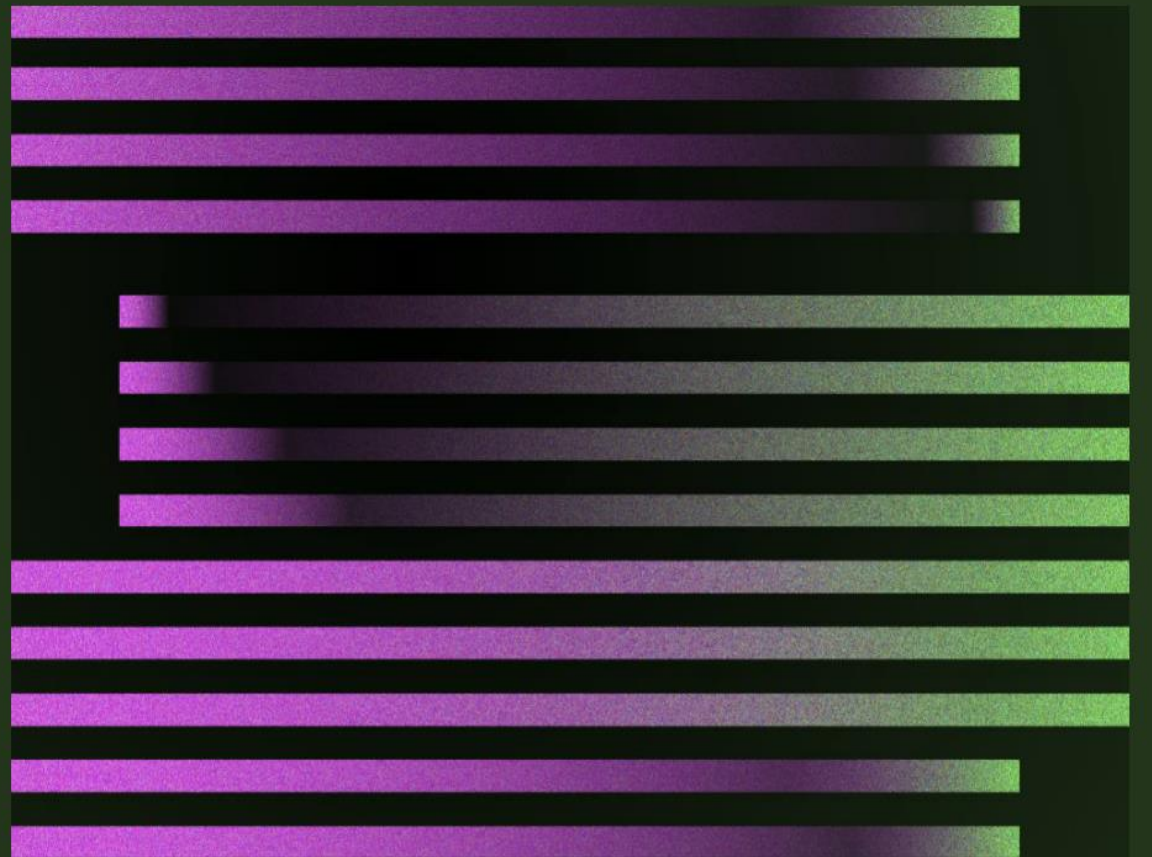
# NetMiner를 이용한 논문 데이터 수집과 연구동향 분석

#Biblio Data Collector



# Introducing ChatGPT

We've trained a model called ChatGPT which interacts in a conversational way. The dialogue format makes it possible for ChatGPT to answer followup questions, admit its mistakes, challenge incorrect premises, and reject inappropriate requests.

[Try ChatGPT](#) ↗[Read about ChatGPT Plus](#)



## 결론

- > X세대가 컴퓨터를 쉽게 다룰 수 있었고, 밀레니얼 세대는 인터넷과 소셜미디어에 능통했으며, Z세대가 모바일 속 유튜브 콘텐츠를 선호했듯 앞으로의 아이들은 궁금증을 AI로 해소하는 AI 네이티브로 성장
- > AI 서비스가 보편화됨에 따라 생활 곳곳에서 AI를 경험하고, 궁금한 것이 있을 때 AI에게 물어보는 것을 당연하게 느끼는 미래 세대에게는 'AI를 얼마나 잘 다루는가'가 중요한 경쟁력으로 부각

### 기술의 진보에 따른 인간의 역할 변화(세대별 특징비교)

**X세대(1970~1980년)**

- 컴퓨터 사용에 익숙하며 주위의 눈치를 보지 않는 개성파



**Y(밀레니얼) 세대(1981~1996년)**



- 인터넷과 소셜미디어 사용에 능숙하며 자기 표현 욕구가 강함

**Z세대(1997~2010년)**

- 컴퓨터보다 스마트폰을, 텍스트보다 이미지·동영상 콘텐츠를 선호
- 안전성과 실용성을 추구



**알파세대(2011~2025)**

- AI를 통해 학습하고, 대화하고, 여가를 즐기는 AI 네이티브
- AI 활용 능력이 중요한 경쟁력으로 부각

