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(4 차산업) 미래 사회 예측

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Back in the 1980's a laboratory of **misfits foresaw** our future. Touch screens, automated driving instructions, wearable technology and electronic ink were all developed at the Massachusetts Institute of Technology in a place they call the Media Lab. It's a research lab and graduate school program that long ago **outgrew** its name. Today it's creating technologies to grow food in the desert, control our dreams and connect the human brain to the internet. Come have a look at what we found in a place you could call-- the Future Factory.

To Arnav Kapur, a graduate student in the Media Lab, the future is **silent**. He's developed a system to surf the internet with his mind. What happens is when you're reading or when you're talking to yourself, your brain transmits electrical signals to your vocal cords. You can actually pick these signals up and you can get certain clues as to what the person intends to speak. So the brain is sending an electrical signal for a word that you would normally speak but your device is intercepting that signal? It is. So instead of speaking the word, your device is sending it into a computer. That's correct. That's unbelievable. Let's see how this works. So we tried him. What is 45,689 divided by 67? Sure. He silently asks the computer and then hears the answer through vibrations transmitted through his skull and into his inner ear. Six eight one point nine two five. Exactly right. One more. What's the largest city in Bulgaria and what is the population? The screen shows how long it takes the computer to read the words that he's saying to himself. Sofia, 1.21 million. That is correct. You just **Googled** that. I did. You could be an expert in any subject. You have the entire internet in your head. That's the idea.

Ideas are the **currency** of MIT's Media Lab. The lab is a six-story tower of **Babel** where 230 graduate students speak dialects of art, engineering, biology, physics and coding, all translated into **innovation**. The Media Lab is this **glorious** mixture, this renaissance, where we break down these formal disciplines and we mix it all up and we see what pops out. That's the magic, that **intellectual diversity**. Hugh Herr is a professor who leads an advanced **prosthetics** lab. And what do you get

from that? You get this craziness. When you put, like, a toy designer next to a person that's thinking about what instruments will look like in the future next to someone like me, that's **interfacing** machines to the nervous system, you get really **weird** technologies. You get things that no one could've have **conceived** of.

The Media Lab was **conceived** in a 1984 proposal. MIT's Nicholas Negroponte wrote "computers are media" that will lead to "interactive systems." He predicted the rise of flat panel displays, HD TVs and news "whenever you want it." Negroponte became co-founder of the lab and its director for 20 years. When we were demonstrating these things in, let's say, 85, 86, 87-- it was really considered new. It looked like magic. is **indistinguishable** from magic.

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1. Back in the 1980's a laboratory of **misfits foresaw** our future.  
1980 년대의 부적응자들의 실험실은 우리의 미래를 예측했습니다.
2. Touch screens, automated driving instructions, wearable technology and electronic ink  
터치 스크린, 자동운전시스템, 입는 기술 그리고 전자잉크 기술들이
3. were all developed at the Massachusetts Institute of Technology in a place they call the Media Lab.  
MIT 의, 그들이 말하는, **Media Lab** 이란 곳에서, 모두 개발되었습니다.
4. It's a research lab and graduate school program that long ago **outgrew** its name.  
이곳은 연구실이고 대학원 프로그램이었는데, 오래전에 그 이름을 너무 키웠습니다.
5. Today it's creating technologies to grow food in the desert, control our dreams and connect the human brain to the internet.  
오늘날, 이 곳에서의 기술개발은, 사막에서의 식량생산, 꿈을 제어하기 그리고 인간의 두뇌를 인터넷에 연결을 합니다.
6. Come have a look at what we found in a place you could call-- the Future Factory.  
이제는 사람들이 미래의 공장이라고 일컫는 장소에서, 본 방송이 발견한 것을 와서 보세요
7. To Arnav Kapur, a graduate student in the Media Lab, the future is **silent**.  
Arnav Kapur 은, 미디어 랩의 대학원생인데, 그의 미래는 침묵입니다.
8. He's developed a system to surf the internet with his mind.  
그는 마음만으로 인터넷 서핑을 하는 시스템을 개발했습니다.
9. What happens is when you're reading or when you're talking to yourself, your brain transmits electrical signals to your vocal cords.  
당신이 책을 읽을 때, 또는 스스로에게 이야기를 할 때는, 당신의 뇌가 전기신호들을 성대로 보내는 일이 일어납니다.
10. You can actually pick these signals up and you can get certain clues as to what the person intends to speak.  
당신은 이 신호들을 실제적으로 잡아서, 확실한 단서를 알 수 있습니다. 이 사람이 어떤 말을 하려고 하는지 말입니다.
11. So the brain is sending an electrical signal for a word that you would normally speak  
뇌가 당신이 평소 하고자 하는 단어에 대한 전자신호를 보내는군요
12. but your device is intercepting that signal? It is. So instead of speaking the word,  
그러나, 당신의 기기가 그 신호를 낚아채나요? 네 그래요... 그래서 단어를 내 뱉는 대신에,
13. your device is sending it into a computer. That's correct. That's unbelievable. Let's see how this works. So.

당신의 기기가 그 단어를 컴퓨터에 보내는군요... 그래요... 믿을 수가 없네요. 이것이 어떻게 작동이 되는지 봅시다.

14. We tried him. What is 45,689 divided by 67? Sure.

우리는 그를 시험했습니다. 45,689 나누기 67 는 무엇이지요?

15. He silently asks the computer and then hears the answer through vibrations transmitted through his skull and into his inner ear.

그는 조용히, 컴퓨터에 묻고는, 해답을 듣습니다. 그의 두개 골과 속 귀로 전달이 된 진동을 통한 전달을 거쳐서 말입니다.

16. Six eight one point nine two five. Exactly right.

681.925 입니다. 정확하게 맞습니다.

17. One more. What's the largest city in Bulgaria and what is the population?

한가지 더... 불가리아에서 가장 큰 도시는 어디이고, 인구는 어떻게 되나요?

18. The screen shows how long it takes the computer to read the words that he's saying to himself.

스크린은 컴퓨터가, 그가 자신에게 말하려는 단어들을 읽는데 얼마나 걸리는 지를 보여줍니다.

19. Sofia, 1.21 million. That is correct.

소피아, 121 만입니다. 맞아요

20. You just **Googled** that. I did. You could be an expert in any subject.

당신은 방금 구글로 검색을 한 거네요. 그랬습니다. 당신은 어떤 주제이던지 간에 전문가 일수 있네요

21. You have the entire internet in your head. That's the idea.

당신은 당신의 머리 속에 전 인터넷을 가지고 있군요... 그것이 아이디어 입니다.

22. Ideas are the **currency** of MIT's Media Lab.

아이디어가 MIT Media Lab 의 통화입니다.

23. The lab is a six-story tower of **Babel**

연구실은 6 층짜리 바벨탑입니다.

24. where 230 graduate students speak **dialects** of art, engineering, biology, physics and coding, all translated into **innovation**.

여기서 230 명의 대학원생들이 말하는 예술, 엔지니어링, 생물학, 물리학, 코딩 등 모든 못 알아 듣는 소리는, 모두 혁신으로 간주됩니다.

25. The Media Lab is this **glorious** mixture, this **renaissance**, where we break down these formal **disciplines** and we mix it all up and we see what pops out.

미디어 랩은 이 장엄한 조합이고, 재생입니다. 여기서 우리는 전통적인 원칙을 부수고, 전부 뒤죽박죽으로 만들고, 어떤 것이 튀어나오는 지 봅니다.

26. That's the magic, that **intellectual diversity**.

이것은 마술입니다. 지적인 다양성을 가진

27. Hugh Herr is a professor who leads an advanced **prosthetics** lab.

Hugh Herr 는 진보된 인공기관 실험실을 이끄는 교수입니다.

28. And what do you get from that?

여기서 무엇을 당신은 얻어요?

29. You get this craziness. When you put, like, a toy designer next to a person that's thinking about

미친 것 말입니다. 만약 당신이 장난감 디자이너를, 어떤 생각을 하는 한 사람 옆에 둔다면,

30. what instruments will look like in the future next to someone like me, that's **interfacing** machines to the nervous system,

미래의 기구들은, 어떤 모습일까라고 생각하는.. 저처럼 말입니다....이것이 기계와 신경시스템을 연결하는데,

31. you get really **weird** technologies. You get things that no one could've have **conceived** of.  
당신은 진짜 기이한 기술을 얻게 됩니다. 당신은 아무도 상상치 못하던 것을 가지게 됩니다.
32. The Media Lab was **conceived** in a 1984 proposal.  
미디어 랩은, 한 1984 의 제안으로 태어났습니다.
33. MIT's Nicholas Negroponte wrote "computers are media" that will lead to "interactive systems."  
MIT 의 Nicholas Negroponte 는, "computers 가 미디어이고 대화형 시스템을 선도한다고 했습니다.
34. He predicted the rise of flat panel displays, HD TVs and news "whenever you want it."  
그는 평면 TV 를, HD TV 그리고 언제든지 원할 때 보는 뉴스를 예상했습니다.
35. Negroponte became co-founder of the lab and its director for 20 years.  
Negroponte 은 랩의 공동 창시자이고, 20 년간 디렉터를 맡아왔습니다.
36. When we were demonstrating these things in, let's say, 85, 86, 87—  
우리가 85.86.87 년도에 이것들을 전시했을 때에는,
37. it was really considered new. It looked like magic. is **indistinguishable** from magic.  
정말 새롭게 여겨졌습니다. 마치 마술처럼 보였습니다. 마술과 구별을 못할 정도 였습니다.