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Vocabulary Builder Reference from...

Robert Katzschmann: The future of machines that move like animals | TED Talk https://www.ted.com/talks/robert_katzschmann_the_f uture_of_machines_that_move_like_animals



Advanced Words Only

IMPORTANT

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Session 1: Word List

rot	 v. to decay, or cause something to decay, naturally and gradually synonym: perish, decay, corrode
	(1) begin to rot , (2) rot with age
	Please refrigerate the meat, or it will rot .
unnatural	<i>adj.</i> not in accordance with the normal or natural order or not normal, typical, or expected<i>synonym</i>: abnormal, bizarre, artificial
	(1) unnatural death, (2) unnatural disaster
	The unnatural growth of the city has disrupted wildlife habitats.
tinnitus	 <i>n</i>. a ringing, buzzing, or other noise in the ears or head that is not caused by an external sound source; often associated with hearing loss or damage to the ear <i>synonym</i>: ringing, buzzing, humming
	(1) tinnitus treatment, (2) chronic tinnitus
	She suffered from severe tinnitus after attending a loud
	concert without earplugs.
glide	v. to move smoothly and effortlesslysynonym: slide, skim, coast

	(1) glide through the water, (2) glide down the mountain The eagle gracefully glided on the thermals, soaring above the mountains.
wiggle	 v. to move or cause to move up and down or from side to side in short and quick movements synonym: wiggle, jiggle, squirm
	(1) wiggle her lips, (2) wiggle with excitement
	Her hips wiggle as she walks.
rattle	 v. to make or cause to make short, successive, sharp, and loud sounds synonym: jolt, shake, babble
	-
	 (1) rattle along a road, (2) rattle and bang at the door The vast earthquake caused the house to rattle.
biomimetics	<i>n.</i> the study of natural systems and structures to create new technologies or improve existing ones
	(1) biomimetics research, (2) biomimetics technology
	The aircraft's design was inspired by biomimetics principles, which allowed for improved aerodynamics and reduced fuel consumption.
propel	 v. to move, drive or push something forward or in a particular direction, often with a lot of force synonym: drive, push, move
	(1) propel growth, (2) propel the ship
	An increase in employment helps propel economic growth.
imitate	 v. to copy the speech, behavior, appearance, etc. of someone or something synonym: mimic, emulate, replicate
	(1) imitate painting styles, (2) imitate animal sounds
	He imitated the modus operandi of the famous phantom
	thief.

propeller	 n. a device with rotating blades or vanes used for propulsion or creating lift, typically used on boats or aircraft synonym: prop, rotor, fan
	(1) propeller design, (2) propeller aircraft
	The boat's propeller stopped working in the middle of the lake.
disrupt	 v. to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance synonym: interrupt, disturb, break into
	(1) disrupt a well-ordered condition, (2) disrupt sleep
	I'm so sorry to disrupt you when you're pretty busy.
robotic	 adj. of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots synonym: automated, mechanical, laborsaving
	(1) robotic arm, (2) robotic guide operation
	The surgeon removed the tumor using robotic video assistance.
untethered	 adj. not tied or secured to anything; free to move or roam without restriction or confinement synonym: free, loose, unattached
	(1) untethered phone, (2) untethered from reality
	The bird flew untethered in the sky.
deform	 v. to change or distort the shape or appearance of something; to become misshapen or distorted synonym: distort, contort, mangle
	(1) deform the shape, (2) deform his way of life
	The heat from the fire deformed the plastic parts of the
	appliance.

contraction	 n. the act or process of becoming smaller or shorter in size, volume, or amount
	synonym: shrinking, compression, reduction
	(1) contraction of a disease, (2) contraction in the industry
	The contraction of the economy has led to job losses.
thigh	 n. the part of the human leg between the hip and the knee; in animals, the corresponding upper part of the hind leg synonym: thigh-bone, femur, upper leg
	(1) thigh muscle, (2) chicken thigh
	The marathon runner felt a cramp in her thigh at the 20th mile.
laminate	 n. a material made by bonding together two or more layers of different materials, often used in furniture or flooring synonym: veneer, coating, layer
	(1) laminate flooring, (2) laminate table
	The countertop in my kitchen is made of durable laminate material.
conductivity	 n. the quality of a material's ability to conduct electricity, heat, etc. synonym: conduction
	(1) low conductivity, (2) electrical conductivity
	High thermal conductivity is also essential for the exterior of the machine.
inject	 v. to put a liquid such as a drug or other substance into a person's or an animal's body using a needle and syringe (= small tube) synonym: shoot, infiltrate, insinuate
	(1) inject under the skin, (2) inject a personal opinion into a debate
	Let's try to inject a bit of enthusiasm into your performance.
antagonistic	<i>adj.</i> characterized by opposition or hostility towards someone or something, often used to describe a

	confrontational or aggressive attitude synonym: hostile, opposing, conflicting
	(1) an antagonistic contradiction, (2) antagonistic relationship
	His antagonistic behavior was causing trouble in the workplace.
tedious	 adj. tiresome or boring because of being repetitive, dull, or too long; causing mental or physical fatigue due to its unrelenting nature synonym: boring, monotonous, dull
	(1) tedious task, (2) tedious routine
	The work of data entry can be tedious , but it is important for
	maintaining accurate records.
fabricate	 v. to make something, especially by assembling parts or constructing it from raw materials; to invent and present something false as true or real to deceive someone synonym: manufacture, assemble, falsify
	(1) fabricate a chemical, (2) fabricate an excuse
	The detective discovered that the witness had fabricated her story about the crime.
interpolation	 n. the insertion of something, such as a word or phrase, into a text or speech; the estimation of a value within an existing set of data by calculating values that are based on surrounding known values
	synonym: insertion, addition, interpolation
	(1) spline interpolation , (2) perform interpolation
	The scientist used interpolation to estimate the amount of rain that fell during the storm.
standalone	 adj. (of computer hardware or software) able to operate the system without being connected to other hardware or software; (also stand-alone) capable of working independently
	(1) standalone application, (2) standalone approach

	We never prescribe medication as a standalone treatment.
biodegrade	 v. to decay naturally by microorganisms, such as bacteria and fungi
	 biodegrade by the microorganism, (2) bioplastic designed to biodegrade
	The company's plastic products are easily biodegraded thanks to a unique manufacturing process.
mimic	 v. to imitate someone's speech, movement, or behavior, especially to make others laugh synonym: mirror, imitate, ape
	 (1) mimic a human voice, (2) mimic numerous instruments He is very popular at school because he can mimic all the
	teachers' accents.
rethink	v. to consider again a plan, idea, etc., especially to change it
	synonym: reexplore, review, reconsider
	(1) rethink a marketing plan, (2) rethink the role of the manager
	We have to rethink our company's product lineup for further growth.
pollute	 v. to make an area or substance, such as land, air, water, etc., dirty or harmful to living things by adding waste matter or harmful chemicals synonym: contaminate, corrupt, degrade
	(1) pollute the air, (2) pollute the thread
	We should do our best not to pollute the environment.
reimagine	 v. to imagine or conceive of something in a new or different way
	synonym: re-conceptualize, re-envision, re-create
	(1) reimagine the future, (2) reimagine the possibilities
	The company is trying to reimagine its business model to

stay competitive.

Session 2: Spelling

1.	rae along a road	v.	to make or cause to make short, successive, sharp, and loud sounds
2.	fate an excuse	v.	to make something, especially by assembling parts or constructing it from raw materials; to invent and present something false as true or real to deceive someone
3.	int under the skin	v.	to put a liquid such as a drug or other substance into a person's or an animal's body using a needle and syringe (= small tube)
4.	chronic tius	n.	a ringing, buzzing, or other noise in the ears or head that is not caused by an external sound source; often associated with hearing loss or damage to the ear
5.	wie with excitement	v.	to move or cause to move up and down or from side to side in short and quick movements
6.	thh muscle	n.	the part of the human leg between the hip and the knee; in animals, the corresponding upper part of the hind leg
7.	gle through the water	<i>v</i> .	to move smoothly and effortlessly
8.	r_t with age	v.	to decay, or cause something to decay, naturally and gradually
9.	bioplastic designed to biode	v.	to decay naturally by microorganisms, such as bacteria and fungi

ANSWERS: 1. rattle, 2. fabricate, 3. inject, 4. tinnitus, 5. wiggle, 6. thigh, 7. glide, 8. rot, 9. biodegrade

10. conon of a disease	n.	the act or process of becoming smaller or shorter in size, volume, or amount
11. roc guide operation	adj.	of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
12. fate a chemical	v.	to make something, especially by assembling parts or constructing it from raw materials; to invent and present something false as true or real to deceive someone
13. electrical conity	n.	the quality of a material's ability to conduct electricity, heat, etc.
14. prl the ship	v.	to move, drive or push something forward or in a particular direction, often with a lot of force
15. tes task	adj.	tiresome or boring because of being repetitive, dull, or too long; causing mental or physical fatigue due to its unrelenting nature
16. rek a marketing plan	<i>v</i> .	to consider again a plan, idea, etc., especially to change it
17. rene the future	v.	to imagine or conceive of something in a new or different way
18. rene the possibilities	v.	to imagine or conceive of something in a new or different way
19. chicken thh	n.	the part of the human leg between the hip and the knee; in animals, the corresponding upper part of the hind leg

ANSWERS: 10. contraction, 11. robotic, 12. fabricate, 13. conductivity, 14. propel, 15. tedious, 16. rethink, 17. reimagine, 18. reimagine, 19. thigh

20. dem his way of life	v.	to change or distort the shape or appearance of something; to become misshapen or distorted
21. prer aircraft	n.	a device with rotating blades or vanes used for propulsion or creating lift, typically used on boats or aircraft
22. conon in the industry	n.	the act or process of becoming smaller or shorter in size, volume, or amount
23. tes routine	adj.	tiresome or boring because of being repetitive, dull, or too long; causing mental or physical fatigue due to its unrelenting nature
24. late flooring	n.	a material made by bonding together two or more layers of different materials, often used in furniture or flooring
25. stane application	adj.	(of computer hardware or software) able to operate the system without being connected to other hardware or software; (also stand-alone) capable of working independently
26. rek the role of the manager	v.	to consider again a plan, idea, etc., especially to change it
27. dit sleep	v.	to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance
28. biocs research	n.	the study of natural systems and structures to create new technologies or improve existing ones

ANSWERS: 20. deform, 21. propeller, 22. contraction, 23. tedious, 24. laminate, 25. standalone, 26. rethink, 27. disrupt, 28. biomimetics

29.	ime animal sounds	ν.	to copy the speech, behavior, appearance, etc. of someone or something
30.	gle down the mountain	v.	to move smoothly and effortlessly
31.	mic a human voice	v.	to imitate someone's speech, movement, or behavior, especially to make others laugh
32.	begin to r_t	v.	to decay, or cause something to decay, naturally and gradually
33.	rae and bang at the door	v.	to make or cause to make short, successive, sharp, and loud sounds
34.	dit a well-ordered condition	v.	to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance
35.	ime painting styles	v.	to copy the speech, behavior, appearance, etc. of someone or something
36.	prl growth	v.	to move, drive or push something forward or in a particular direction, often with a lot of force
37.	dem the shape	v.	to change or distort the shape or appearance of something; to become misshapen or distorted
38.	unal death	adj.	not in accordance with the normal or natural order or not normal, typical, or expected
39.	prer design	n.	a device with rotating blades or vanes used for propulsion or creating lift, typically used on boats or aircraft

ANSWERS: 29. imitate, 30. glide, 31. mimic, 32. rot, 33. rattle, 34. disrupt, 35. imitate, 36. propel, 37. deform, 38. unnatural, 39. propeller

40.	an anttic contradiction	adj.	characterized by opposition or hostility towards someone or something, often used to describe a confrontational or aggressive attitude
41.	wie her lips	v.	to move or cause to move up and down or from side to side in short and quick movements
42.	tius treatment	n.	a ringing, buzzing, or other noise in the ears or head that is not caused by an external sound source; often associated with hearing loss or damage to the ear
43.	unal disaster	adj.	not in accordance with the normal or natural order or not normal, typical, or expected
44.	poe the air	v.	to make an area or substance, such as land, air, water, etc., dirty or harmful to living things by adding waste matter or harmful chemicals
45.	mic numerous instruments	v.	to imitate someone's speech, movement, or behavior, especially to make others laugh
46.	unted from reality	adj.	not tied or secured to anything; free to move or roam without restriction or confinement
47.	poe the thread	v.	to make an area or substance, such as land, air, water, etc., dirty or harmful to living things by adding waste matter or harmful chemicals
48.	perform intion	n.	the insertion of something, such as a word or phrase, into a text or speech; the estimation of a value within an existing set of data by calculating values that are based on surrounding known values

ANSWERS: 40. antagonistic, 41. wiggle, 42. tinnitus, 43. unnatural, 44. pollute, 45. mimic, 46. untethered, 47. pollute, 48. interpolation

49.	stane approach	adj.	(of computer hardware or software) able to operate the system without being connected to other hardware or software; (also stand-alone) capable of working independently
50.	unted phone	adj.	not tied or secured to anything; free to move or roam without restriction or confinement
51.	anttic relationship	adj.	characterized by opposition or hostility towards someone or something, often used to describe a confrontational or aggressive attitude
52.	biocs technology	n.	the study of natural systems and structures to create new technologies or improve existing ones
53.	int a personal opinion into a debate	v.	to put a liquid such as a drug or other substance into a person's or an animal's body using a needle and syringe (= small tube)
54.	roc arm	adj.	of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
55.	low conity	n.	the quality of a material's ability to conduct electricity, heat, etc.
56.	spline intion	n.	the insertion of something, such as a word or phrase, into a text or speech; the estimation of a value within an existing set of data by calculating values that are based on surrounding known values

ANSWERS: 49. standalone, 50. untethered, 51. antagonistic, 52. biomimetics, 53. inject, 54. robotic, 55. conductivity, 56. interpolation

57. late table	n.	a material made by bonding together two or more layers of different materials, often used in furniture or flooring
58. biode by the microorganism	ν.	to decay naturally by microorganisms, such as bacteria and fungi

ANSWERS: 57. laminate, 58. biodegrade

Session 3: Fill in the Blanks

- 1. Her hips _____ as she walks.
- *v.* to move or cause to move up and down or from side to side in short and quick movements
- 2. She suffered from severe ______ after attending a loud concert without earplugs.
- *n.* a ringing, buzzing, or other noise in the ears or head that is not caused by an external sound source; often associated with hearing loss or damage to the ear
- 3. We never prescribe medication as a ______ treatment.
- *adj.* (of computer hardware or software) able to operate the system without being connected to other hardware or software; (also stand-alone) capable of working independently
- 4. The heat from the fire _____ the plastic parts of the appliance.
- v. to change or distort the shape or appearance of something; to become misshapen or distorted
- 5. The ______ growth of the city has disrupted wildlife habitats.
- *adj.* not in accordance with the normal or natural order or not normal, typical, or expected
- 6. The ______ of the economy has led to job losses.
- *n.* the act or process of becoming smaller or shorter in size, volume, or amount
- 7. The scientist used ______ to estimate the amount of rain that fell during the storm.
- *n.* the insertion of something, such as a word or phrase, into a text or speech; the estimation of a value within an existing set of data by calculating values that are based on surrounding known values

ANSWERS: 1. wiggle, 2. tinnitus, 3. standalone, 4. deformed, 5. unnatural, 6. contraction, 7. interpolation

- 8. Let's try to _____ a bit of enthusiasm into your performance.
- v. to put a liquid such as a drug or other substance into a person's or an animal's body using a needle and syringe (= small tube)
- 9. The eagle gracefully _____ on the thermals, soaring above the mountains.
- v. to move smoothly and effortlessly
- 10. The countertop in my kitchen is made of durable _____ material.
 - *n.* a material made by bonding together two or more layers of different materials, often used in furniture or flooring
- 11. He is very popular at school because he can _____ all the teachers' accents.
- v. to imitate someone's speech, movement, or behavior, especially to make others laugh
- 12. The company's plastic products are easily ______ thanks to a unique manufacturing process.
- *v.* to decay naturally by microorganisms, such as bacteria and fungi
- 13. Please refrigerate the meat, or it will ____.
- *v.* to decay, or cause something to decay, naturally and gradually
- 14. We have to ______ our company's product lineup for further growth.
- v. to consider again a plan, idea, etc., especially to change it
- 15. The marathon runner felt a cramp in her _____ at the 20th mile.
- *n.* the part of the human leg between the hip and the knee; in animals, the corresponding upper part of the hind leg

ANSWERS: 8. inject, 9. glided, 10. laminate, 11. mimic, 12. biodegraded, 13. rot, 14. rethink, 15. thigh

- 16. The detective discovered that the witness had ______ her story about the crime.
- v. to make something, especially by assembling parts or constructing it from raw materials; to invent and present something false as true or real to deceive someone
- 17. High thermal ______ is also essential for the exterior of the machine.
- *n.* the quality of a material's ability to conduct electricity, heat, etc.
- 18. The bird flew _____ in the sky.
 - *adj.* not tied or secured to anything; free to move or roam without restriction or confinement
- 19. We should do our best not to ______ the environment.
- *v.* to make an area or substance, such as land, air, water, etc., dirty or harmful to living things by adding waste matter or harmful chemicals
- 20. I'm so sorry to _____ you when you're pretty busy.
- *v.* to prevent or stop something, especially an event, activity, or process, from continuing in the usual way by causing a problem or disturbance
- 21. The aircraft's design was inspired by ______ principles, which allowed for improved aerodynamics and reduced fuel consumption.
 - *n.* the study of natural systems and structures to create new technologies or improve existing ones
- 22. The work of data entry can be _____ but it is important for maintaining accurate records.
- *adj.* tiresome or boring because of being repetitive, dull, or too long; causing mental or physical fatigue due to its unrelenting nature

ANSWERS: 16. fabricated, 17. conductivity, 18. unterhered, 19. pollute, 20. disrupt, 21. biomimetics, 22. tedious,

- 23. He ______ the modus operandi of the famous phantom thief.
- *v*. to copy the speech, behavior, appearance, etc. of someone or something
- 24. The surgeon removed the tumor using ______ video assistance.
- *adj.* of or relating to mechanical robots; (robotics) the interdisciplinary branch of computer science and engineering with the practical use of robots
- 25. An increase in employment helps _____ economic growth.
 - v. to move, drive or push something forward or in a particular direction, often with a lot of force
- 26. His ______ behavior was causing trouble in the workplace.
- *adj.* characterized by opposition or hostility towards someone or something, often used to describe a confrontational or aggressive attitude
- 27. The company is trying to ______ its business model to stay competitive.
- *v.* to imagine or conceive of something in a new or different way
- 28. The vast earthquake caused the house to _____.
- *v*. to make or cause to make short, successive, sharp, and loud sounds
- 29. The boat's ______ stopped working in the middle of the lake.
- *n.* a device with rotating blades or vanes used for propulsion or creating lift, typically used on boats or aircraft

ANSWERS: 23. imitated, 24. robotic, 25. propel, 26. antagonistic, 27. reimagine, 28. rattle, 29. propeller