sometimes it can seem like we’re quickly approaching peak technology we all carry tiny computers around in our pockets. that give us access to all the world’s knowledge speak to intelligent devices in our homes when we want to know what the weather’s like outside or need to order a pizza. and some of us even have cars that can take over driving duties for us in most conditions. it may seem like the peak but it’s not even close.

prognosticators like famed futurist Rey Kurzweil. who is currently Google’s director of engineering have been peering into the future for decades with a remarkable level of accuracy.

and if they’re right which they usually are the next 30 years or so are going to absolutely blow your mind. Here are 10 things we can expect to take place before the year 2050

10.

self-driving car technology has come a very long way in just the past five years or so. but if some very smart people are correct what we’ve seen from the tech so far is just the tip of the iceberg. a recent study by microprocessor giant Intel predicts that we’ll see this technology ramp up very quickly becoming an 800 billion dollar industry by 2035 and exploding into a 7 trillion dollar revenue stream by 2050. Intel refers to this revenue stream as the passenger economy which takes into account goods and services that will benefit from the rise of fully autonomous vehicles as well as more intangible benefits like save time and energy. the package delivery and transportation industries will undergo a seismic shift and transportation fatalities will practically cease to exist. Intel predicts that between 2035 and 2045. over half a million lives will be saved by self-driving vehicles. a separate study conducted by IHS automotive agrees reaching the conclusion that by 2050 nearly every car on the road will be autonomous. this is one prediction that appears to be right on point.

automaker General Motors recently announced that as soon as next year they’ll be introducing a next-generation Chevy bolt that will be fully autonomous and won’t even come equipped with a steering wheel and pedals.

9.

the smartphone revolution is only a little more than a decade old. but already it seems like the device that none of us can live without is hitting a technological wall. their power battery life and ease of use simply can’t be significantly improved upon. which has many in the tech industry thinking about what comes next.

while the answer isn’t clear they certainly have a few ideas and they all point to the inevitability that within the next decade the smartphone as we know it will become a thing of the past. what we do know is that many of the this forthcoming Abba lessons can already be seen in today’s phones. Apple and Samsung by far the two largest smartphone manufacturers have recently been focusing heavily on upgrades to their voice based artificially intelligent Virtual Assistants a trend we can expect to continue. also augmented reality features which overlay the real world with digital objects and interfaces are becoming more mainstream. next-gen personal computing devices may look more like small unobtrusive AR headsets but even further into the future your device may actually become a part of your brain. Tesla founder Elon Musk recently announced the formation of a new company called Neural Inc. the sole goal of which is to perfect neural lace technology a brain computer interface which will finally close the gap between our minds and our machines.

8.

speaking of Elon Musk he’s also been in the news early and often lately. as his private aerospace company SpaceX has been ramping up activity the company is the first entity public or private to launch a recycled rocket into space and the standardization of their techniques could make rocket launches up to 30 percent cheaper. which is a good starting point. but all musk is ever really wanted is to make space travel accessible and affordable to the public and they may very well be closing in on that mission.

their next goal is to be able to reuse a rocket within 24 hours. putting space flight on more of a playing field with commercial aircraft in terms of how often they can be reliably launched. while space tourism remains far out of reach for the general public some including NASA astronaut Don Thomas are predicting that this won’t be the case in as little as ten years.

7.

recent advances in artificial intelligence or AI are as thrilling as they are scary. Facebook’s experiments with AI chat BOTS resulted in two BOTS promptly creating a new language that only they could understand before the plug was pulled. and that’s only one recent example.

some of the world’s smartest people such as astrophysicist Stephen Hawking are of the opinion that AI poses a greater threat to mankind than any other technology. it may be mind-blowing to you that you can ask Siri to cue up your favorite song and make her learn how to pronounce your friends names correctly. but those working on the technology have far loftier goals in mind. Rey Kurzweil is an authority on this subject. which is why Google has tasked him with figuring out ways to improve and even revolutionize its search engine technology. he thinks that on its current course research into artificial intelligence will produce an AI that will pass the Turing test. meaning that in conversation it will be indistinguishable from a human being no later than 2029. of course, the threat is that once an AI surpasses human intelligence it will decide that our existence is no longer necessary. which is why many including Hawking have called for strict controls on the technology as it matures to prevent what might be called the Skynet scenario.

6.

let’s be frank. once we have robots that are indistinguishable from humans it will take about 10 seconds before people from all walks of life are lining up around the proverbial block to have sex with those robots.

there was no short supply of ethical issues involved with human on robot sex. but knowing what we know about human nature it is definitely going to happen and many forward-looking minds are already trying to work out how we will integrate human robot relationships into society, far from simply sex toys. many experts are predicting that a great deal of humans will choose to forego romantic relationships with other humans in favor of robots.

famed futurist dr. Ian person predicts that virtual sex in some form or another will be commonplace by 2030  
with robots capable of sexual relations appearing in wealthy households as soon as 2035. dr. person also agrees with London University professor David Levy author of a book on the subject of human robot relations. that actual marriage between human and machine will be legal by 2050. it may seem far fetched that our children will be marrying Androids in less than 35 years. until you consider that a few decades ago the idea of gay marriage which is rightfully gaining widespread acceptance today. seemed just as unrealistic but then as we will see we may have more in common with our machines than we think by that point

5.

a cure for cancer has long been the holy grail of medicine and it’s eluded us in large part because cancer is not just one disease. a wide range of malignancies that attack the body in completely different ways fall into the range of cancer. meaning that there cannot truly be a one-size-fits-all cure unless perhaps there can be. recent developments have seen a completely new approach to treating cancer in all of its forms and they’re promising enough that some experts are claiming that an end to cancer is in sightю in 2016 researchers announced a new treatment that acts as a universal cancer vaccine. a bit of a misnomer since it is given to patients that already have the disease. the treatment uses tiny amounts of the patient’s own DNA to prompt the immune system to attack tumors. an unprecedented technique that has shown a great deal of promise. similarly groundbreaking new methods of treatment are sure to follow. but even aside from that the statistics are encouraging. earlier diagnosis and more effective treatments along with plummeting rates of tobacco use have resulted in a 1% decline in cancer deaths every single year since 1990 and a recent analysis from two universities in the UK has suggested that by 2050 cancer mortality and patients under the age of 80 will dwindle to zero.

4.

the slow march of time has been the enemy of mankind for our entire history. but many scientists believe that this doesn’t have to be the case forever or even for very much longer. increasingly aging is coming to be seen by the scientific community not as some inevitable mystical process. but as a destructive biochemical one and one that with the right technology can be prevented or even reversed. Rey Kurzweil for his part believes that biotech upgrades will add one year of life expectancy to our own current lifespans every year. Beginning in 2020 these encapsulate myriad technologies from computerized 3d printed implants to stem cell therapies to genetic engineering. a technology which is already a reality thanks to CRISPR the gene editing technique that is currently undergoing rigorous testing in China. relaxed regulations compared to the u.s. allow for a wider variety of techniques to be examined. a stunning array of universities and institutions are pursuing these technologies and they’re making some bold predictions Goodell last of the amazingly named global brain Institute thinks that humans will reach their 120th birthday by 2050 and David catch of the maximum life Institute has gone even further saying that he believes we will have the tools to reverse aging by 2029.

3.

transhumanism is a global movement that believes in the eventual and quite literal merging of man and machine. and as we’ve already seen the prospect is not at all far-fetched. even in the technologies infancy brain implants have shown the ability to perform such miracles as restoring limited movement to the paralyzed and giving sight to the blind. technology like Elon Musk’s aforementioned brain computer interface once perfected will give our brains literal superhuman processing capability.  
 in the field of prosthetics has seen the kind of technological explosion in recent years that makes replacement of your entire body with artificial parts. a concept that is edging out of the realm of science fiction and into the realm of the possible. transhumanists believe that this has always been the end game of technological advancement and that our merging with the technology we create is inevitable. but if we are to truly reap the benefits of the transhuman revolution will need to find a way to replace the one organ that truly makes us the thinking feeling beings we are the brain. and as you may have guessed they’re working on that too.

2.

an artificial brain that performs just like a human one will be within reach by 2050. if you believe the scientists that have made the development of this tech their life’s work. a Massachusetts company called neurologic has created an artificially intelligent platform based on the design of the human brain and that’s just the beginning. futurists such as Chris fail person and others are a near unanimous agreement that within the next few decades the technology will exist to digitally decode a human being’s consciousness and upload it into an artificial unit no larger than our actual brains. of course, if this is true it means that the human race will have achieved immortality. we’ll be able to conquer death completely. our minds will exist solely in the digital realm housed inartificial bodies that can simply be replaced if injured or destroyed. along with a fresh upload of a backup copy of our consciousness. it may seem like the furthest reaches of science fiction but it will be the end result of a seismic and fundamental shift in the nature of our society. that curse fail in particular has seen coming for decades.

1.

it should be noted that Rey Kurzweil has been making predictions about the future of technology for over 30 years. with an astonishing rate of accuracy. fully 86% of his predictions have come to pass and he has long insisted that at our rate of technological advancement we will experience what he calls a technological singularity. he describes this as the point at which we will multiply our effective intelligence a billion fold by merging with the intelligence we have created. and if you think that sounds crazy consider the humble smartphone. obsolete though it may soon be we use these devices as extensions of ourselves already. there’s no need to Rack your brain trying to remember a detail of some movie to win an argument when you can quickly look it up online. or to stand in the rain trying to hail a cab when you can just tell Siri to get you a new uber. we do these things without even thinking of the time when they simply weren’t possible and as new technological advances keep coming fast and furious. we will integrate them into our lives just as eagerly as we did the first iPhone. many futurists agree that the singularity the point at which human beings and our technology become one in the same will take place by 2050 but not Rey Kurzweil he thinks it will happen by 2045 and he’s not often wrong you

1. driving duties - водительские обязанности
2. quickly approaching peak - быстро приближается к вершине
3. prognosticators – прогнозисты
4. peering into the future – всматриваться в будущее
5. remarkable level – значительный уровень
6. tip of the iceberg – верхушка айсберга
7. recent study – недавнее исследование
8. ramp up very quickly – очень быстро нарастить
9. revenue stream – поток доходов
10. intangible benefits – нематериальные блага
11. undergo a seismic shift – подвергнуться сейсмическому сдвигу
12. transportation fatalities – ДТП со смертельным исходом
13. recently - недавно
14. steering wheel – руль
15. significantly improved upon – значительно улучшилось
16. certainly – конечно
17. inevitability – неизбежность
18. become a thing of the past – уйти в прошлое
19. forthcoming – предстоящий
20. heavily on – сильно зависит от
21. mainstream – основной поток
22. unobtrusive – ненавязчивый
23. sole goal – единственная цель
24. to perfect neural lace – для идеального нейронного кружева
25. standardization – стандартизация
26. affordable – Доступная по цене
27. greater threat to mankind – большая угроза человечеству
28. loftier goals – более высокие цели
29. indistinguishable – неразличимый
30. our existence is no longer necessary – наше существование больше не нужно
31. let’s be frank – будем откровенны
32. lining up – Выстраиваемся в очередь
33. there was no short supply – не было недостатка в запасах
34. choose to forego – предпочитаю отказаться
35. wealthy households – зажиточные домохозяйства
36. rightfully gaining widespread acceptance – заслуженно завоевывает широкое признание
37. more in common – больше общего
38. eluded us – ускользнул от нас
39. disease – болезнь
40. wide range of malignancies – широкий спектр злокачественных новообразований
41. one-size-fits-all cure – универсальное средство
42. new approach – новый подход
43. bit of a misnomer – немного ошибочно
44. tumors – опухоли
45. groundbreaking – новаторским
46. plummeting rates – резко упавшие ставки
47. dwindle – падает
48. slow march of time – медленный ход времени
49. inevitable mystical process – неизбежный мистический процесс
50. rigorous testing – тщательное тестирование
51. stunning array – Потрясающий массив
52. pursuing these technologies – внедрение этих технологий
53. bold predictions – смелые прогнозы
54. quite literal merging – довольно буквальное слияние
55. all far-fetched – все надуманное
56. infancy brain implants –имплантаты мозга младенца
57. aforementioned brain – вышеупомянутый мозг
58. literal superhuman processing capability – буквальная сверхчеловеческая перерабатывающая способность
59. field of prosthetics – Область протезирования
60. edging out of the realm – выходя из царства
61. truly reap – по-настоящему пожинать плоды
62. unanimous agreement – Единогласное согласие
63. exist solely – существуют только
64. the furthest reaches of science – самые дальние достижения науки
65. seismic and fundamental shift – сейсмический и фундаментальный сдвиг
66. technological advancement – технический прогресс
67. Rack your brain – Разберись со своим мозгом
68. fast and furious – Быстро и в ярости
69. as eagerly - с таким же рвением