



IDC School of Design
अभिकल्प विद्यालय

Future gadgets as seen through Science fiction Series

Design Exploration Seminar

DE-687

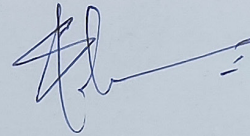
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Guided by
Prof. Sugandh Malhotra

APPROVAL SHEET I

This Design Exploration Seminar I titled 'Future Gadgets as seen through science fiction shows.' by Rahu R is approved in partial fulfillment of the requirements for Master of Design Degree in Mobility & Vehicle Design, IIT Bombay.

Project Guide:

A handwritten signature in blue ink, consisting of stylized, overlapping loops and a long horizontal stroke extending to the right.

Declaration

I declare that this written submission represents my ideas in my own words and adequate references and citations have been provided where required along with the original sources. I have adhered to all principles of academic honesty and integrity and have not misinterpreted or fabricated or falsified any idea or information in my submission. I understand that any violation of the above will be cause for disciplinary action by the institute and can evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed.

Signature

Name

Roll number

Date

Acknowledgement

I am grateful to Dr. Sugandh Malhotra for giving me the opportunity of working on this project and for his expertise and technical support in the implementation. I would like to express sincere thanks to all people who provided much needed information and insights during the research phase of this project.

Nevertheless, I express my gratitude towards my colleagues for their kind co-operation and encouragement which helped me in completion of this project

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Table Of Content

1. Introduction	6
2. Motivation for the Project	7
3. Methodology	8
4. Observation	9
5. Analysing	28
6. Classification	29
7. Infographic	30-31
8. Reference	32



Introduction

ALTERED CARBON

More than 300 years in the future, society has been transformed by new technology, leading to human bodies being interchangeable and death no longer being permanent. Takeshi Kovacs is the only surviving soldier of a group of elite interstellar warriors who were defeated in an uprising against the new world order. His mind was imprisoned for centuries until impossibly wealthy businessman Laurens Bancroft offers him the chance to live again. Kovacs will have to do something for Bancroft, though, if he wants to be resurrected. Bancroft's request of Kovacs is to solve a murder -- Bancroft's. "Altered Carbon" is based on Richard K. Morgan's cyberpunk noir novel of the same name.



Motivation for the project Project

Alter Carbon is a science-fiction television series set in a distant future where technology has advanced significantly. In this world, gadgets and technology play a crucial role in society, and many devices have become essential to everyday life.

One of the most significant advancements in technology in the world of Alter Carbon is the ability to transfer human consciousness into new bodies or “sleeves.” This has led to a society where people can effectively live forever by transferring their consciousness into new bodies as their old ones age or wear out.

Other notable gadgets and technologies in Alter Carbon include advanced cybernetic implants that allow people to interface with machines and computers, enhanced augmented reality systems that overlay information onto the real world, and advanced weapons and vehicles that use energy weapons and anti-gravity technology.

Overall, gadgets and technology are a fundamental aspect of the world of Alter Carbon, and they play a significant role in shaping the story and the characters' lives

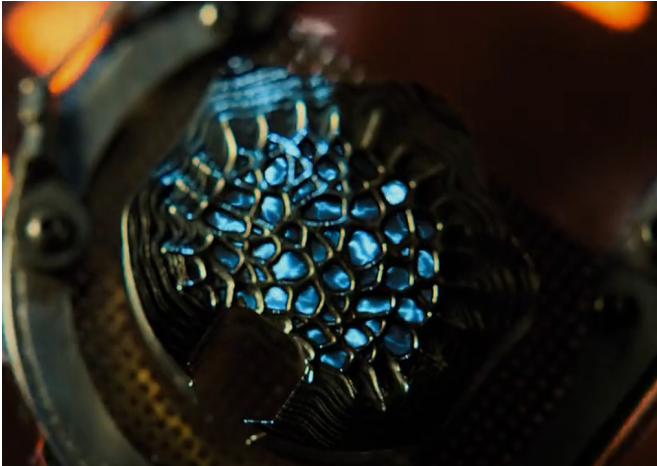
Methodology

Each episode of the original series is an hour long feature full of intense character interaction, drama, action and interaction with meta humans and unexplained Fights scenes. It is almost impossible to go through every little detail of every scene, Although identifying technological equipment is quite easy, it is not true when something has an effect on the environment. This is often overlooked because they almost often occur on the background of the seen and is usually very subtle. To cover each episode, the first play through was solely focused on following the storyline and noting down obvious technological interferences with the characters. In the second play through, each scene was observed for any missed references in the first play through while also noting down the effects of changes from actions that occurred earlier. The technology that was featured in the episodes was systematically documented in a spreadsheet. After the documentation was completed, an analysis was done to map it using Maslow's hierarchy of needs.

Observation

Stack

This is a cortical stack. As Protectorate citizens, each have one implanted when we are one year old. Inside is pure human mind, coded and stored as DHF: Digital Human Freight. Your consciousness can be downloaded into any stack, in any sleeve. You can even needlecast in minutes to a sleeve anywhere in the Settled Worlds.



Virtual reality

VR stands for Virtual Reality. As a substitute to Needlecasting VR can be used to store a consciousness within a Cortical Stack or be used for communication.



Reaper

Reaper is one of the drugs available in Bay City. Takeshi Kovacs bought Reaper, along with a large number of other drugs, from a street dealer. Reaper was developed for studying near death experiences and even a small dose can slow bodily functions like breathing, muscle movement and heart rate.



Flying Limousine

This is a flying limousine which has suicide doors which is very similar to the Rolls Royce.



Smart Window

The window can change the mood and view of outside visually. The window turns transparent on the touch of the user.



Virtual Experience

Citizens can use VR cafes to experience any scenario they want within a simulated environment with more disturbed patrons playing out violent or sexually depraved acts.



DHF Backup Satellite

D.H.F. Backup Satellite: Only the wealthiest individuals (Meths) can afford to make copies of their consciousnesses, or D.H.F.s. The D.H.F. backups are stored in cortical stacks in storage facilities. Every few minutes, new memories are transmitted into the D.H.F. backup via satellite.



Police vehicle

Police Vehicle, this vehicle also has jet thrusters which is very similar to that of the limousine. the wheels are retracted while landing. the wheel is multifunctional.



Ingram-40 Fletchette Pistol

It is describe as a C-TAC prototype firing flanged armor-piercing homing rounds from a 10-round clip. The flechettes are magnetically fired, and can be recalled to the weapon, allowing for functionally infinite ammo and the ability to hit targets from the rear.



Holographic mobile device

This device is very similar to that of a smart phones, the device can project holographic 3D images and maps. this device can take calls and messages. and is connected to the user.



Magnetic Assault Rifle

Magnetically fired assault rifle, described by Kovacs as a "TAC Marine standard-issue AR". The prop itself proclaims it to be a "DUAL STAGE MAG-TIC RAIL". Concept art refers to it as a "Shock Trooper Railgun" and states that it is a refined evolution of the AK-74-based weapon used 250 years earlier.



Organic 3D printer

This is a personal Portable 3D printer which can print clones of the required sleeve. this printer can print whole new sleeve in no time.



ID Plate

This smart device scans for sleeve ID, the device is completely transparent and it also shows the history of the stack to which sleeve it was pinned to.



AI Artificial Intelligence

Poe was the artificial intelligence owner of The Raven Hotel. He was patterned after the famous writer Edgar Allan Poe. In 2384, Takeshi Kovacs became Poe's first guest at his hotel in fifty years.



VR Clinic

Hostel groups like the Colonial Tactical Assault Corps and Wei Clinic owned by Reileen Kawahara, and Yakuza use it for torture. VR environments make methods of torture that would normally kill subjects easily applicable, as they can simply reboot the system to kill and revive subjects over and over.



Operation Theater

The operation theater has only has a surgeon and a Robotic nurse to assist the surgeon.



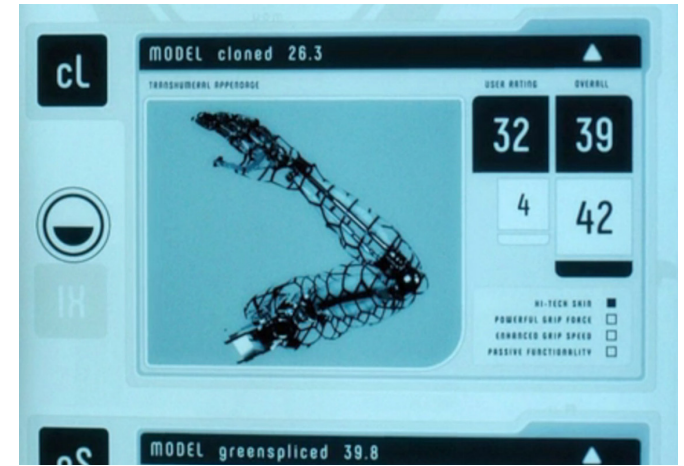
Robotic Nurse

The robotic nurse assists the surgeon with the surgical equipments and monitoring the patient



Bionic Arm

This arm is attached to ortetga when she was attacked in the lift with star fish blade. this arm is stronger and more durable than organic arm.



Star fish Blade

A bladed weapon resembling a shiruken and attached to a metal, retractable stick, which he mostly uses to rip out stacks from people.



Rotary Machine Gun

Poe advertises the Raven as “Bay City’s most macabre lodging establishment.” The Raven is fully licensed to protect guests, and includes two hidden rotary machine guns in the lobby.



Drone Camera

This camera is used by the the news reader to take take live news coverages. The drone does not require any human to handle.



Envoy Ship

The envoy ship is kept under camouflage hologram to protect it from the enemies, the ship gets destroyed in mid-air during the CTAC attack the strong hold.



Holographic Bracelet

The holographic bracelet is very similar to the smart phones, it is connected to the eye of the user and it also projects holographic images and videos.



Particle Blaster

It is an energy weapon kept in biometric safe which only the owners can open. the weapon was used to kill Laurens Bancroft.



Head in the Clouds

Head in the Clouds is one of the most exclusive Houses floating above Bay City. It was commonly referred to as the “Satellite of Sin.”



Psychasec

Psychasec is a company that specializes in producing high-end sleeves and clones to the ultra-wealthy meths. They maintain the vaults that house the clones of the Bancroft family, as well as Reileen's.



Skin repair tool

The device helps in fixing the skin damages such as burns, cuts and bruise.



Holographic Game

The game is projected in the empty space, the game gives immersive experience and makes the game play very involving.



Double sleeve

Double is considered when a single DHF is up-loaded to two or multiple sleeves.



Micro Wire Camera

The camera is manually operated into the eye and is cannot be removed. It is a typical eye camera which can be used to record videos and images.



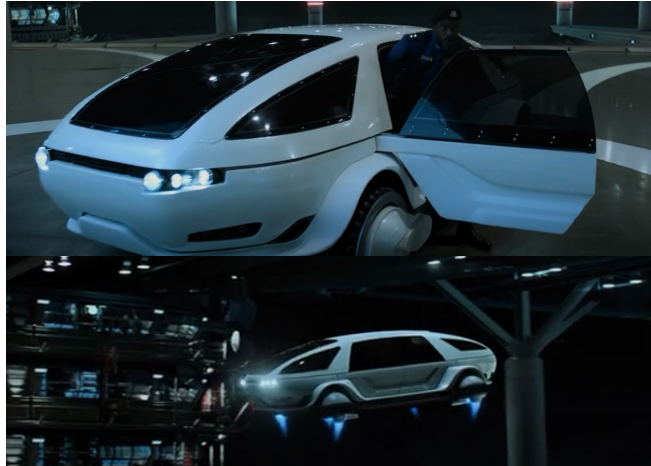
Dipper device

This device was used to take over the back up to the needlecast station, and preventing the needlecat to a new sleeve.



Flying luxury vehicle

This vehicle is used to pick up Vip's from their location and take them to the satellite of sin. This vehicle has thuresters on each tyre which retracts while it is about to land.-



Electron Destabelizer

This tech is used to disintegrate the nano bots of the poe the Artificial intelligience in the real world and Virtual world.



Season 2

Breath Inhaler

This helps the sleeve to breath when it is contained in a chemical solution. The inhaler is inserted deep inside the wind pipe to supply life supporting gas so that there should be no sign of leakage.



Re-sleeving Pod

This pod contains and preserves the sleeve. The pod is also used for re-sleeving any DHF into sleeve.



Harlan's world

Harlan's World was a habitable planet, approximately eighty light-years[1] from Earth. It hosted three moons and a series of orbital platforms known colloquially as the Angels.



Weapons Augment

This is a unique feature embedded to the sleeve which is termed as personallised weapons augment this unique feature helps the sleeve to attract the weapons if kept in proper range.



Tattoo Machine

The Machine uses lazer to engrave tatoo on skin. the machine is like any other tatoo machine the only difference is it does not use ink to print tatoo on skin.



Holographic live broadcast

This technology is used by the governor to deliver live speech or message to the citizens.



Nano dust

The Artificial intelligence Poe uses these nano dust to emerge as a physical entity in the Actual world.



Memory Extraction Rig

This device is used to extract information of the close ones from the memories of the captive individual and using it against them.



Holographic Police Barricade

The function of the holographic barricade is similar to that of a ribbon barricade. Only difference is that there is no necessity of carrying a ribbon.



CTAC Smart bracelet

This bracelet carries all data regarding criminal records, social activities and also used for communications.



Smart Coils

One of the new characters in Season 2, Trepp (played by Luke Cage's Simone Missick), has a unique cybernetic implant she calls her "coils." They allow her to do hacking on the fly, among other abilities.



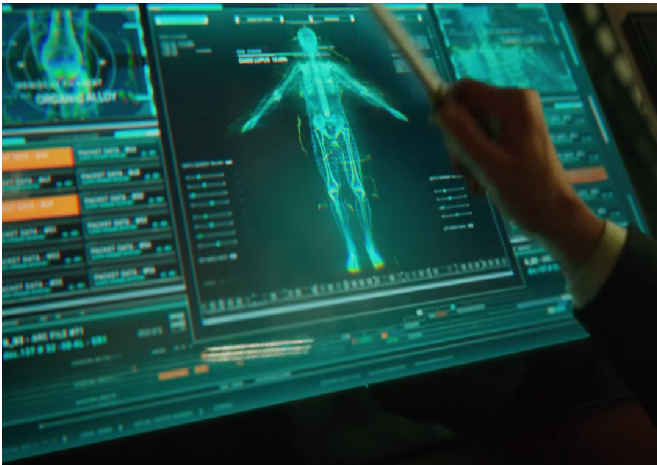
Stun grenade

The grenade can be remotely activated and has the ability to paralyse the enemy for short period of time.



Body Analyzer

This device is used for checking vitals and body condition. It also can look for any biomechanical augmentations.



Take a Pill

Take a pill is a transportation system or network which is similar to hyper loop technology. The place where you get into the vehicle is called as station center.



Biometric Payment

The device scans the palm through which it gets information about the customer and proceeds for the payment.



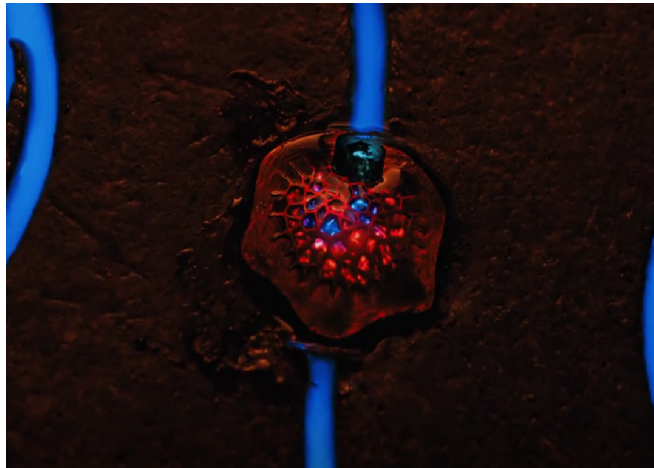
Memory stripper

The device is used for stripping particular parts of memory from a lost or abandoned stacks. The memories extracted from the stack are traded for credits.



Corrupted Stack

The stack is corrupted by the stored memories of elder. these memories are used to kill all the founding members of the harlan's world.



Stack Simulator

This gadget is used to connect or to experience the memories of other DHF concious.



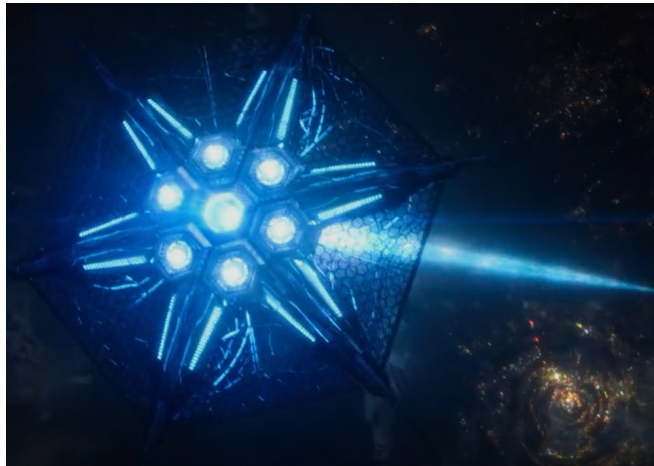
Memory Extraction visualiser

This device visualises the memories into images which is extracted from the DHF of the captivated prisoner. The device shows the image and data of the people with who he/she interacted in the past.



Angel Fire

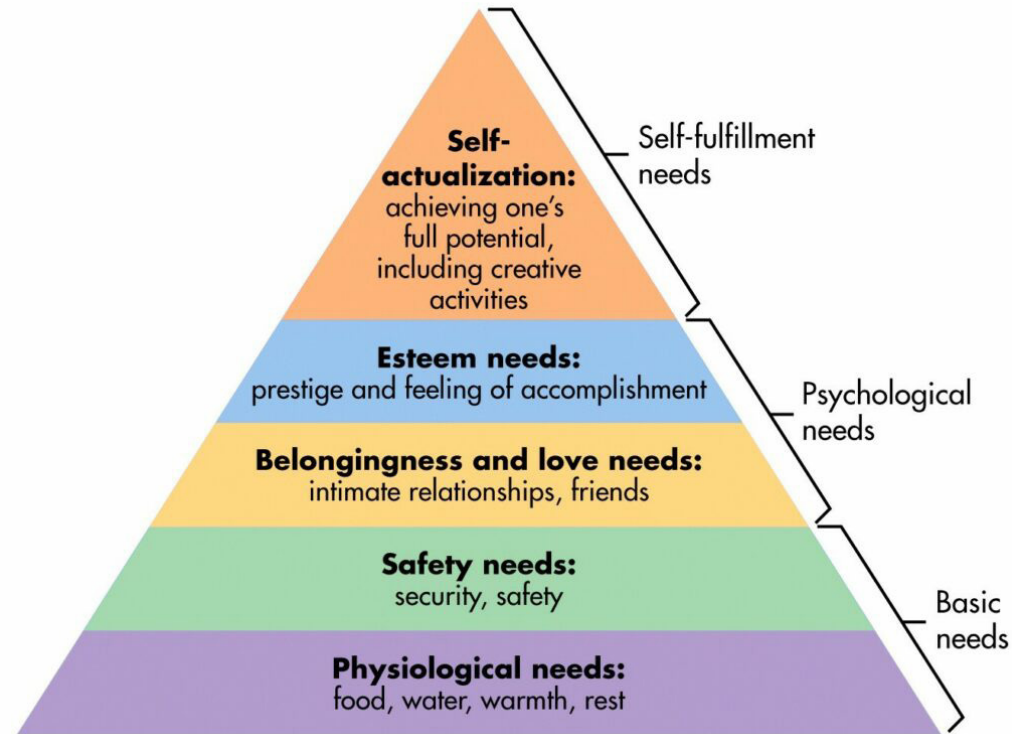
At night, we see beams of blue-white light, called angelfire by the locals, bouncing between the angels like lightning — it's angular because of the honeycomb-pattern of the angels' arrangement.



Elder Technology

This equipment was made by the elder by fusing the human technology with its knowledge and resourcer. This device was formed to control the angel fire which orbits the planet.





Analysing

The technology and gadgets were segregated according to Maslow's hierarchy. Maslow stated that people are motivated to achieve certain needs and that some needs take precedence over others. Our most basic need is for physical survival, and this will be the first thing that motivates our behavior. Once that level is fulfilled the next level up is what motivates us, and so on.

The technologies were classified on the basis of their function and Maslow's hierarchy.

Classification

Survival

Stack
Organic 3D printer
Robotic nurse
Operation theater
Head in clouds
Psychasec
Double sleeving
Breath inhaler
Re-Sleeving pod
Body analyzer
Biometric payment
Nano Dust
Harlan's world

Communication

Smart window
Id Plate
Holographic mobile
Drone news camera
Holographic bracelet
Holographic game
Micro wire camera
Dipper Device
Holographic Live broad
cast
Smart coils
CTAC Smart bracelet

Transportation

Flying Limousine
Police vehicle
Envoy Ship
Flying luxury car
Take a pill

Safety

DHF backup satellite
Skin repair tool
Stun Grenade
Holographic police bar-
ricade
Electron destabilizer

Actualization

Virtual reality
Virtual Experience
VR Clinic
AI Artificial intelligence
Memory extraction visu-
alizer
Memory stripper
Memory extraction Rig
Corrupted stack

Defence

Reaper
Ingram-40 Fletchette
Pistol
Magnetic assault rifle
Bionic arm
Star fish blade
Rotary machine gun
Particle blaster
Weapons Augment
Angel fire
Elder technology



ALTERED CARBON

The integrative attempts to chronicle daily on needs to use a different type of technology.

The creation of the integrative technology is not a direct purpose. Through this project



Gadgets and Technology

Sustainability

- 1. Eco-friendly materials
- 2. Low energy consumption
- 3. Recyclable components
- 4. Minimal waste generation
- 5. Energy-efficient operation
- 6. Long lifespan
- 7. Easy to repair and maintain
- 8. Minimal carbon footprint
- 9. Use of renewable energy sources
- 10. Minimal packaging

Customization

- 1. Modular design
- 2. Interchangeable parts
- 3. User-adjustable settings
- 4. Personalized user interface
- 5. Customizable colors and finishes
- 6. Scalable design
- 7. User-defined profiles
- 8. Flexible manufacturing process
- 9. On-demand production
- 10. User feedback integration

Transparency

- 1. Open source code
- 2. Public documentation
- 3. Regular updates
- 4. User feedback loop
- 5. Clear communication

Accessibility

- 1. User-friendly interface
- 2. Intuitive navigation
- 3. Clear instructions
- 4. Minimal learning curve
- 5. Support for multiple languages
- 6. Large text and icons
- 7. High contrast colors
- 8. Keyboard navigation
- 9. Screen reader compatibility
- 10. Minimal clutter

Security

- 1. Data encryption
- 2. Secure storage
- 3. Regular updates
- 4. User authentication
- 5. Privacy policy

Performance

- 1. Fast loading times
- 2. Smooth navigation
- 3. Minimal lag
- 4. High resolution
- 5. Responsive design
- 6. Minimal battery drain
- 7. Low data usage
- 8. Minimal heat generation
- 9. Minimal noise
- 10. Minimal vibration

- 1. High
- 2. Medium
- 3. Low



arranging daily map out the events of *Altered Carbon* (weekly) and pairing them with real-world events. The primary focus of this map is to link technology, and in the series cycle characters.

to read, subscribe a series article for the project, which included exploring the world view of *Altered Carbon* to help guide student writers for this project, the creator gained insight into how as science fiction can be utilized to make accurate predictions about the future.

1.01 - Series cycle map of events in *Altered Carbon* (weekly) and pairing them with real-world events. The primary focus of this map is to link technology, and in the series cycle characters.



General season

1.02 - Series cycle map of events in *Altered Carbon* (weekly) and pairing them with real-world events. The primary focus of this map is to link technology, and in the series cycle characters.

- 1.01 - Series cycle map of events in *Altered Carbon* (weekly) and pairing them with real-world events. The primary focus of this map is to link technology, and in the series cycle characters.
- 1.02 - Series cycle map of events in *Altered Carbon* (weekly) and pairing them with real-world events. The primary focus of this map is to link technology, and in the series cycle characters.
- 1.03 - Series cycle map of events in *Altered Carbon* (weekly) and pairing them with real-world events. The primary focus of this map is to link technology, and in the series cycle characters.



Reference

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