



# INSPIRED BY GAMING

How game technology is turning business upside down

Loren Rosendaal - Founder of Knowingo+ & Pulsitive  
- Director of Center for Digital Transformation  
at Nyenrode Business University



```
Options:  
-t Ping the specified host until interrupted.  
-a Resolve addresses to hostnames.  
-n count Number of echo requests to send.  
-l size Send buffer size.  
-f Set Don't Fragment flag in packet.  
-i TTL Time To Live.  
-v TOS Type Of Service.  
-r count Record route for count hops.  
-s count Timestamp for count hops.  
-j host-list Loose source route along host-list.  
-k host-list Strict source route along host-list.  
-w timeout Timeout in milliseconds to wait for each reply.  
  
C:\>ipconfig  
  
Windows IP Configuration  
  
Error: This program must be run from within Windows  
  
C:\>ping 192.168.10.1  
Unable to contact IP driver, error code 0.  
  
C:\>
```

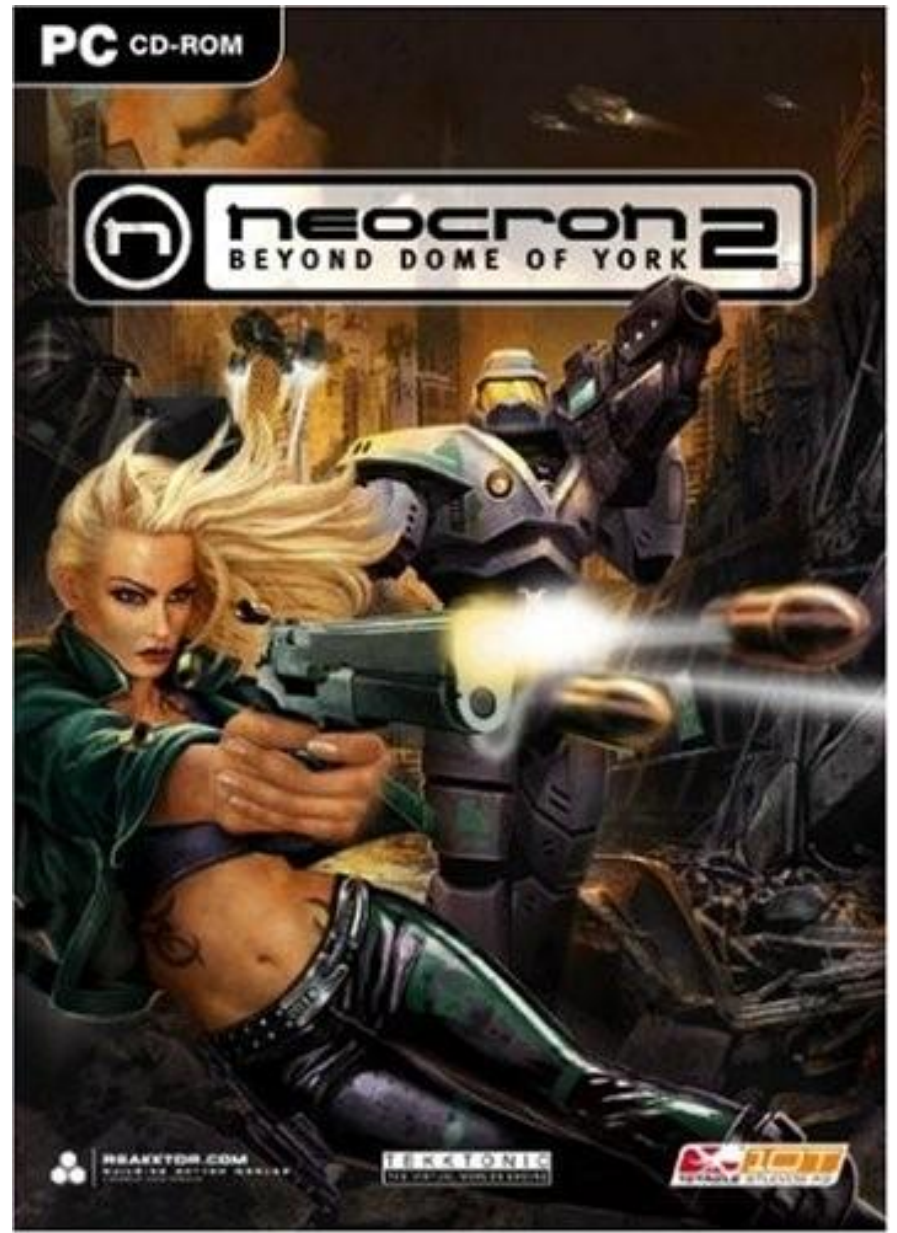
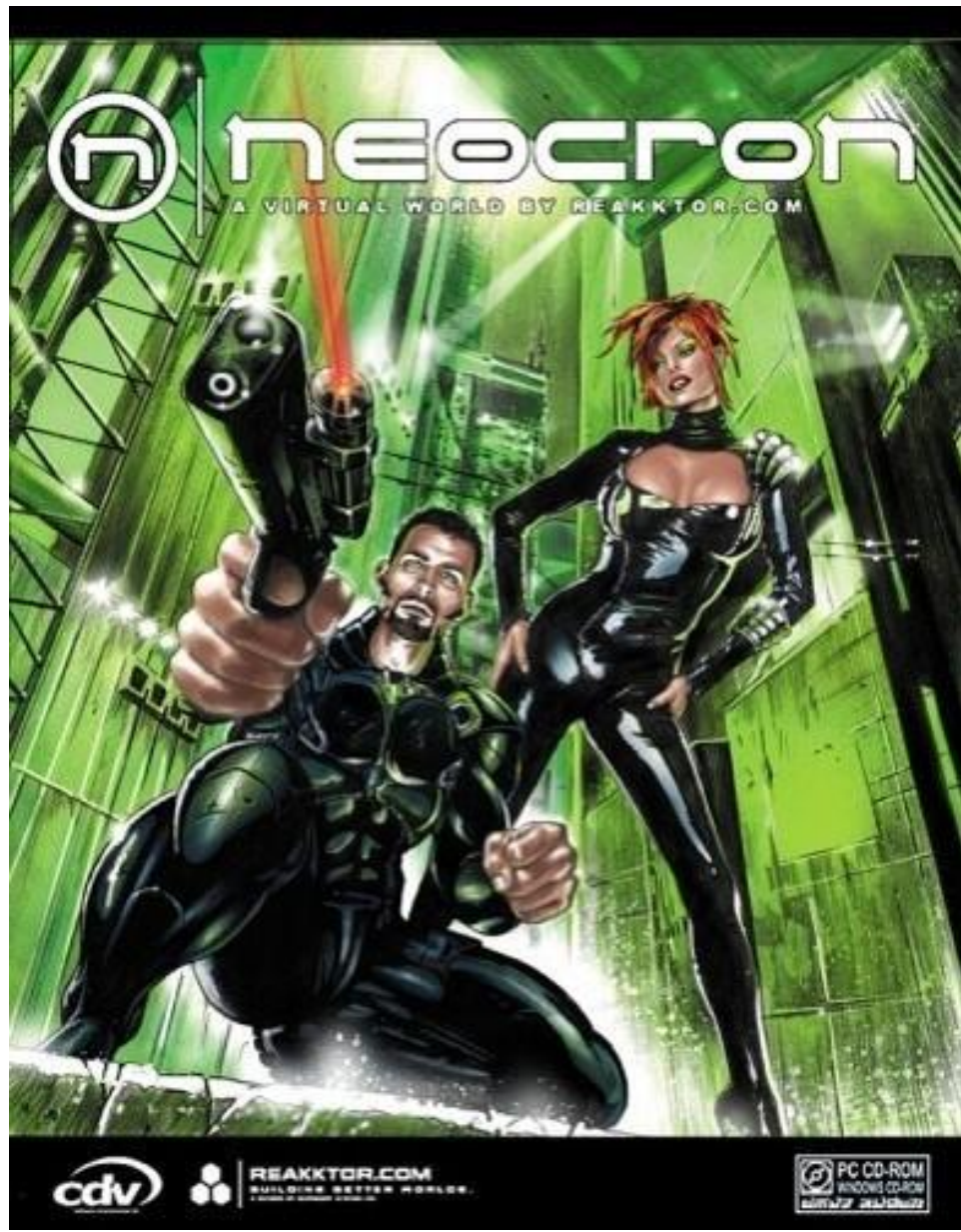
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How it all started...



“Whether you are male, female, young, or old you will enjoy this mod. It is on of the best I have played for any game in a long time. And it could even be so good that if you don't own Red Alert 2/Yuri's Revenge that you should buy it just for this mod.”



“It's three parts Blade Runner, two parts William Gibson novel, a pinch of The Matrix and a scoop of Deus Ex to boot”



Adventures in higher education...



“Shattered Reality Interactive, a 40-person volunteer game development company is attempting to create the world's largest MMO game. John Romero, creator of Doom and Quake, is the on-camera commentator for the series.”

# What else can we do with this skillset?

There is more to life than entertainment...

## SAVING YOUR GAME

There are three different ways to save a game.

### 1. Auto save in Station:

Every time that you land in a station your game is automatically saved. This is an option that can be turned on or off from the Sidebar | Options | Game Play menu. The default setting is On. When used, only the last three auto saved games are retained. It is highly recommended that you turn this option on and that you land somewhere on a regular basis. Doing so will ensure that you don't lose all of your experiences, financial gains and fighting skills that you spent much time and effort to attain, should some unfortunate event terminate your existence.

### 2. While landed in a Station:

If you wish to permanently save a game for a restart point or to mark a milestone in the game or for whatever reason, you can do so only while landed in a station, unless Item # 3 applies. Press [Shift - S] or go to Options | Save Game.

### 3. Salvage Insurance:

You can purchase Salvage Insurance at any Goner Temple. Once acquired, you can save your game anytime, anywhere. But be advised, Salvage Insurance is a single use item. Which means that if you invoke the terms of the Insurance (saving the game), the policy is cancelled.

## KEYBOARD CONTROL KEYS

The key controls listed below are the X3: Terran Conflict Default Profile keys. If you choose a different controller profile or edit the keys and/or the corresponding actions, the list below will not reflect your changes.

The list is divided into two sections, the Game Controls and the Interface Controls

### TARGETING

ACTIONS	KEYS	INFORMATION	KEYS
Track target	[I]	Actions for selected object	[I]
Target nearest enemy	[Shift - T]	Info about selected object	[U]
Target next object	[Page Up]	Current ship	[U]
	Joystick button # 3	Personal Information	[O]
Target previous object	[Page Down]	Sector map	[I]
	Joystick button # 4	Galaxy map	[I]
Target next owned object	[Insert]	Show selection on galaxy map (only in property menu)	[O]
Target previous owned object	[Delete]	Owned property	[I]
Target next enemy	[Home]	Message log	[Shift - M]
Target previous enemy	[End]		

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### FLIGHT CONTROLS

ACTIONS	KEYS
Toggle cursor # 1 light mode	[Space], press and hold Left Mouse Button [Shift - N]
Toggle classic # 1 light mode	[I]
Pitch up	Down arrow
Pitch down	Up arrow
Yaw left	Left arrow
Yaw right	Right arrow
Roll left	[Q]
Roll right	[Q]
Accelerate	[V], Mouse wheel up
Decelerate	[Z], Mouse wheel down
Boost extension	[Tab]
Brake to stop	[Backspace]
Match speed to target	[Shift - F]
Toggle autopilot	[Shift - A]
Dock with target	[Shift - D]
Eject from ship	[Shift - E]
Strafe left	[L], Joystick button # 13
Strafe right	[J], Joystick button # 11
Strafe up	[W], Joystick button # 10
Strafe down	[S], Joystick button # 12

### WEAPONS

ACTIONS	KEYS
Bore sight fire	Cursor fire
Laser targeting mode	[I]
Selected Missile	[H]
Launch Missile	[I]
Selected weapon group 1	[Q]
Selected weapon group 2	[W]
Selected weapon group 3	[E]
Selected weapon group 4	[R]
Weapons menu	[M]

### SHIPS AND STATIONS

ACTIONS	KEYS
Comms	[C]
Trade with Station	[T]
Landed Ships	[L]
Owned Ships	[O]
Change Ship	[S]

### COMMANDS AND MANAGEMENT

ACTIONS	KEYS
Command console (current ship)	[Shift - C]
Rename object	[N]
Wingman attack target	[Shift - G] (not num pad 6)
Wingman protect me	[Shift - 7] (not num pad 7)
Drones attack target	[Shift - B] (not num pad 8)
Drones protect me	[Shift - 9] (not num pad 9)

### FREIGHT

ACTIONS	KEYS
Freight bay	[F]

### UPGRADES

ACTIONS	KEYS
SETA	[S]
Jumpdrive	[J]
Video enhancement goggles	[V]
Best selling price locator	[P]
Best bays locator	[B]

## INTERFACE CONTROLS

### GENERAL

ACTIONS	KEYS
Open Sidebar	[Enter]
Options Menu	[Shift - O]
Load Saved game	[Shift - L]
Save current game	[Shift - S]
Pause Game	[Shift - P]
Quit Game	[Shift - Q]

### EDITING

ACTIONS	KEYS
Delete character	[Delete]
Backspace	[Backspace]
Home	[Home]
End	[End]

### ARCHIVAL

ACTIONS	KEYS
Take Screenshot	[F9], [Print Screen]

### SECTOR MAP

ACTIONS	KEYS
Move Cursor left	Num Pad 4
Move Cursor right	Num Pad 6
Move Cursor up	Num Pad 8
Move Cursor down	Num Pad 2
Move Cursor up and left	Num Pad 7
Move Cursor up and right	Num Pad 9
Move Cursor down and left	Num Pad 1
Move Cursor down and right	Num Pad 3
Move Cursor to nearest object	Num Pad 5
Change map axis	[Insert]
Enable/Disable sector camera	[K]
Zoom map in	[Home]
Zoom map out	[End]
Build Station: Rotate A axis pos	Num Pad 3
Build Station: Rotate A axis neg	Num Pad 1
Build Station: Rotate B axis pos	Num Pad 9
Build Station: Rotate B axis neg	Num Pad 7

### VIEWS

ACTIONS	KEYS
Selected view mode	[F1]
External view	[F2]
Target view/Zoom Monitor	[F3]
Selected monitor	[F4]
Close All Monitors	[F5]
Toggle HUD display	[Shift - H]
View on Left monitor	[Shift - 1] (not num pad 1)
View on Right monitor	[Shift - 2] (not num pad 2)
Zoom In	[+]
Zoom out	[-]
Selected camera mode	Num Pad 0
Default view	Num Pad 5
View from North	Num Pad 8, POV LP
View from Northeast	Num Pad 9
View from East	POV Up-Right
View from Southeast	Num Pad 6, POV Right
View from South	Num Pad 3, POV Down-Right
View from Southwest	Num Pad 2, POV Down
View from West	Num Pad 1, POV Down-left
View from Northwest	Num Pad 4, POV Left
	Num Pad 7, POV Up-Left

### MENUS

ACTIONS	KEYS
Cancel/Escape	[ESC]
Open Sidebar	[Enter], Num [Enter]
Selected option	[Enter]
Move cursor up	Left Mouse button, Joystick button # 1
Move cursor down	[Up arrow], POV up
Move cursor left	[Down arrow], POV down
Move cursor right	[Left arrow], POV left
Scroll Up	[Right arrow], POV right
Scroll down	Mouse wheel up
Scroll page up	Mouse wheel down
Scroll page down	[Page Up]
Empty selection	[Page Down]
Fill selection	[Home]
Close all menus	[End], [Delete]

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## HOW TO START

This section will help you to choose which game start to use and to understand what universe has waiting for you and how to Trade, Fight, Build and Think in the X Universe.

When you start a new game, you find yourself in a small ship floating in a big universe, small boat floating in a vast ocean. You might not be sure about which direction to go. Your goals may reach beyond the horizon. Your aims may include domination of the trading empire, to be a hero to all races or maybe all of these things. These are enorm you look at your humble starting point but they are all achievable. The universe was are up to the challenge, you can make it yours.

### GAME START OPTIONS

There are a number of New Game starting scenarios. After you have achieved certain bonus game starts will become available. No matter with which game you start, there upgrades that you should install at the nearest equipment dock once you have sufficient include the Trading System Extension, Navigation Command Software and the Best B upgrades.

### YOU ARE HERE!

Which sector you start in and with what equipment depends on which game start you

Start Game	Start Sector	Ship(s)	Ship Class	Starting Credits
Terran Defender	Uranus	Terran Sabre	M4	1000
Argon Patriot	Omicon Lyrae	Argon Elite	M4	1974
Humble Merchant	Herron's Nebula	Argon Mercury Discoverer	T5 M6	9699
Bankrupt Assassin	Aladna Hill	Spli Mamba	M8	0

If you start a Custom game then all bets are off. This is a "roll your own" option but you Buster (M4) and have 1000 credits to your name.

But no one knows user experience design better than the games industry!





**No one knows how to engage people better than the games industry!**

# Better yet, we create worlds! Worlds that operate in real-time!

That means: Rendering, Pathfinding, AI, Physics and more...

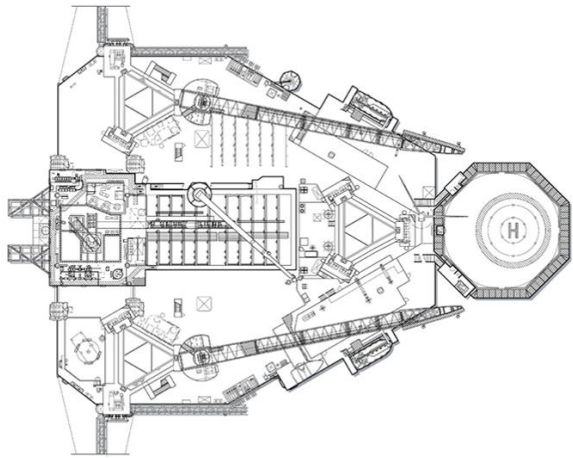
Plus some kick-ass optimization, we only have 16 milliseconds after all!



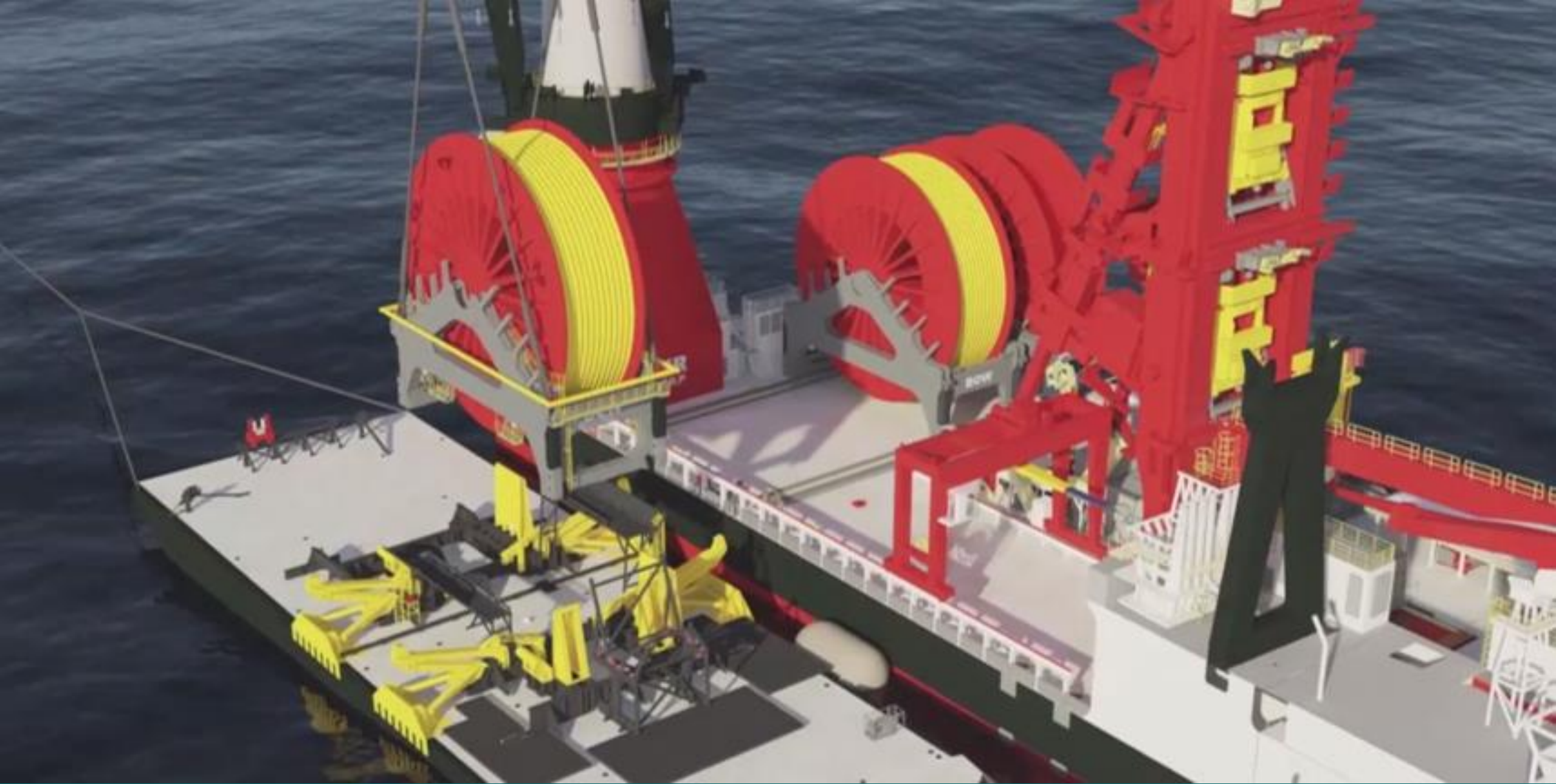


# Putting those capabilities to use

And changing industries as we go...



Offshore planning, slow, low tech, risky...




**Now in real-time 3D, saving millions!**



**Selling tailor made products like this amazing axe-bow ship takes months...**



ASD TUG 3212 

MAIN OPTIONS

▾ OPTION ONE

Flag state NL

Operational climate

▸ OPTION TWO

▸ OPTION THREE



CLOSE



A moderate climate is a climate that is neither too hot nor too cold. It is not violent nor is it subject to extreme weather condition but is mostly mild or calm. The winters are cold and summers hot.

◀ CHOOSE THE OPERATIONAL CLIMATE ▶

**COLD**  
< -5°



**MODERATE**  
-5° to 30°



**TROPICAL / MED**  
30° to 45°



**GULF**  
> 45°



What about configuring it in 30 minutes on your iPad?

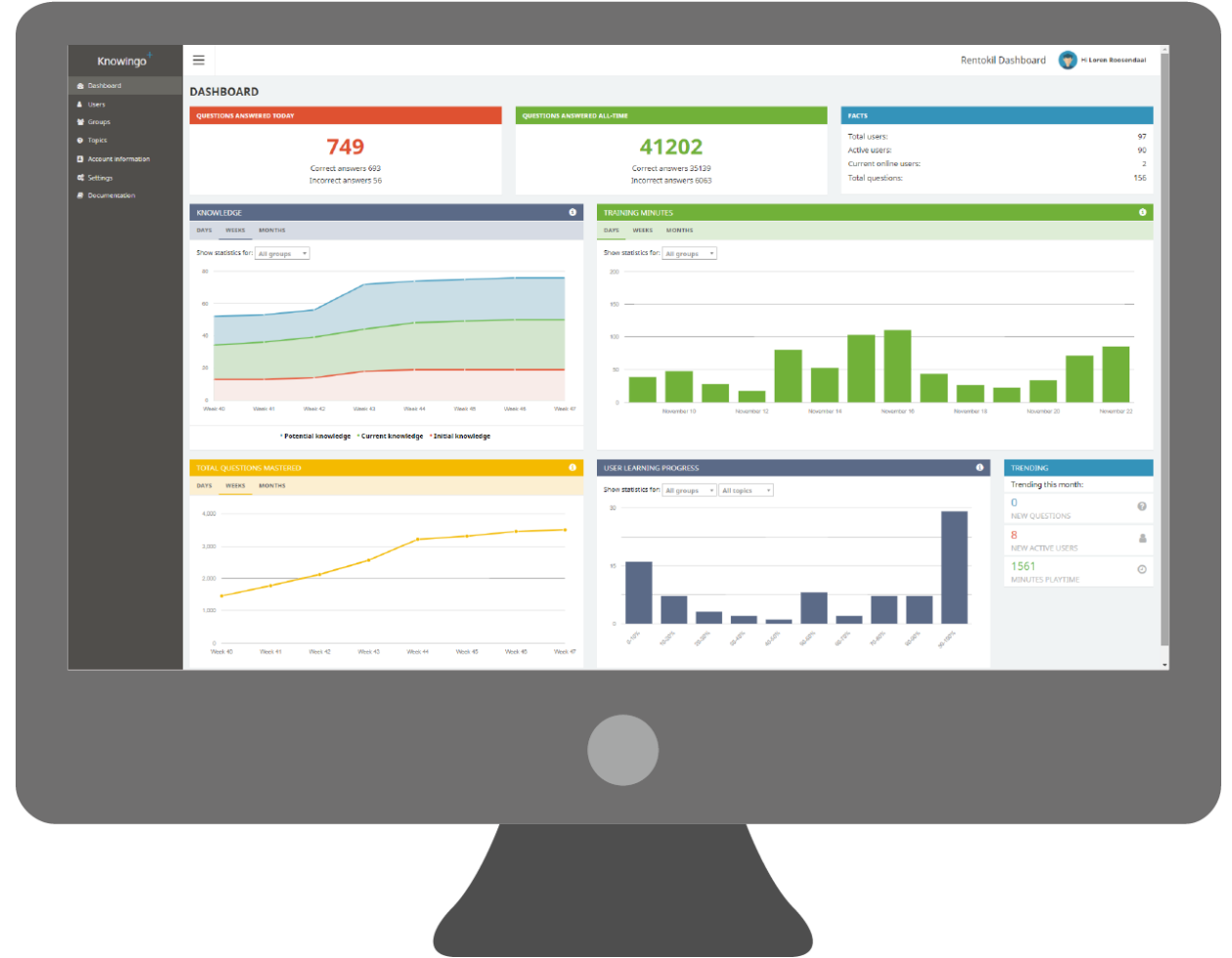
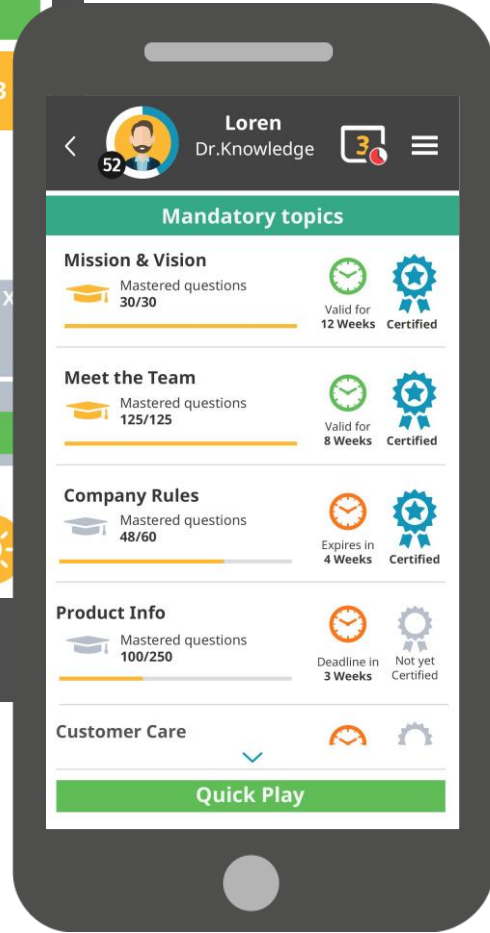
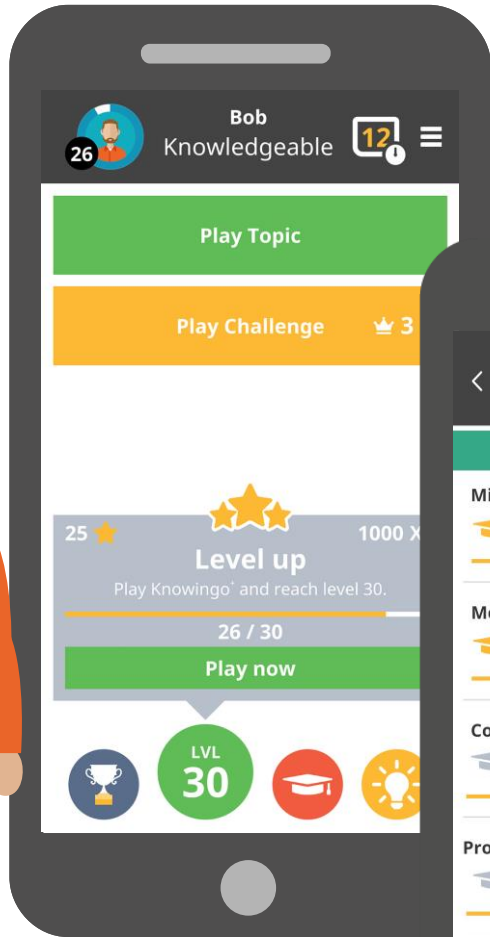


**INTERACT**<sub>360</sub>

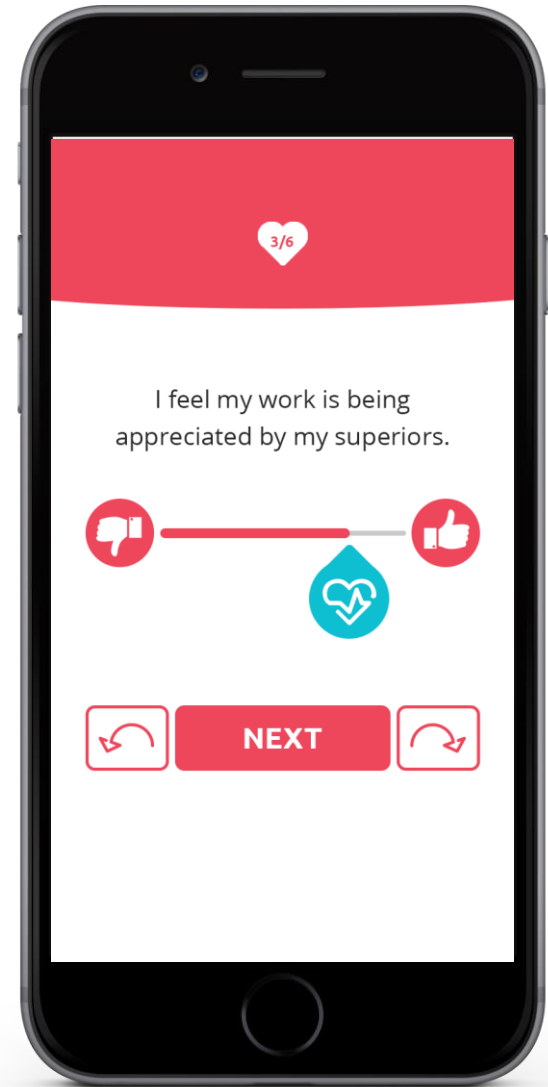
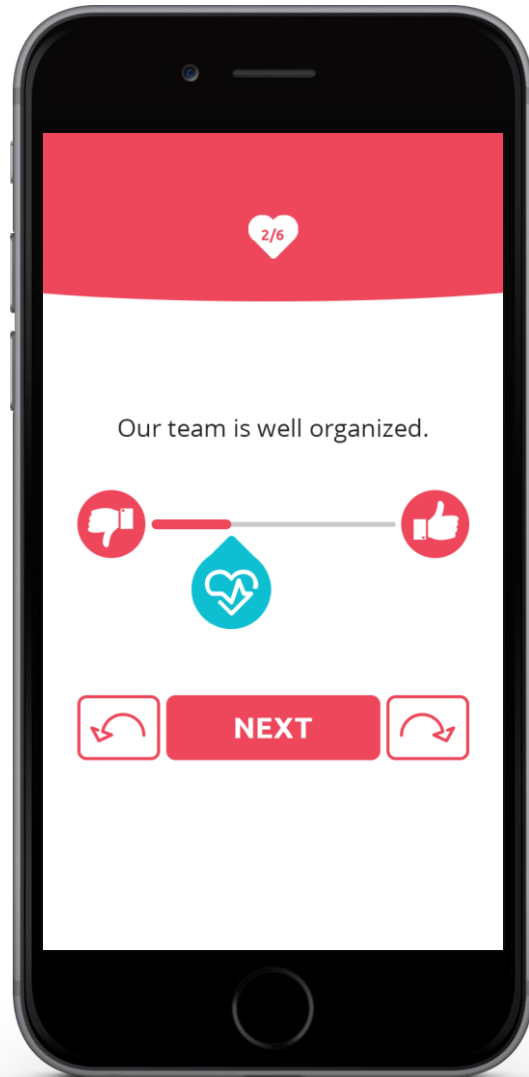
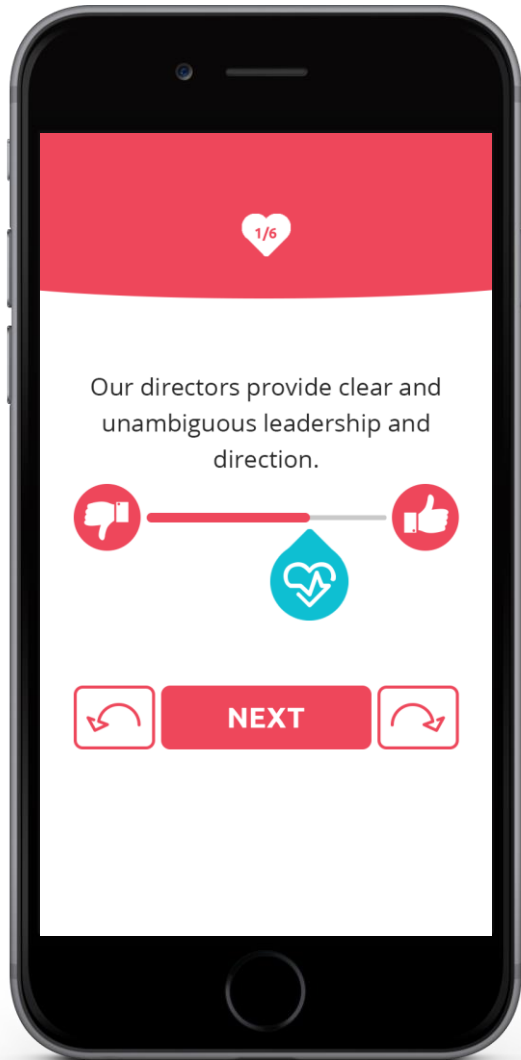
**Training our peacekeeping forces is an incredible challenge...**



How about training 3000 of them to communicate with the local population in just a few weeks?



Game technology also powers Knowingo, the worlds most intelligent learning platform!



**And the biggest innovation in employee engagement in decades!**

# But more about that later...

Lets talk about the shiny new trend in the room!

# What trend exactly though?

Take your pick...

# **Virtual Reality**

# **Augmented Reality**

# **Mixed Reality**

What happened to plain old reality?



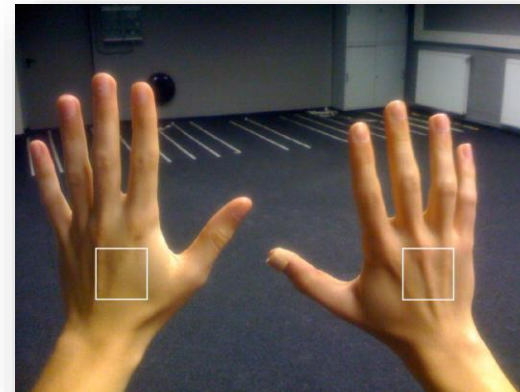


REAL ENVIRONMENT

AUGMENTED REALITY (AR)

AUGMENTED VIRTUALITY (AV)

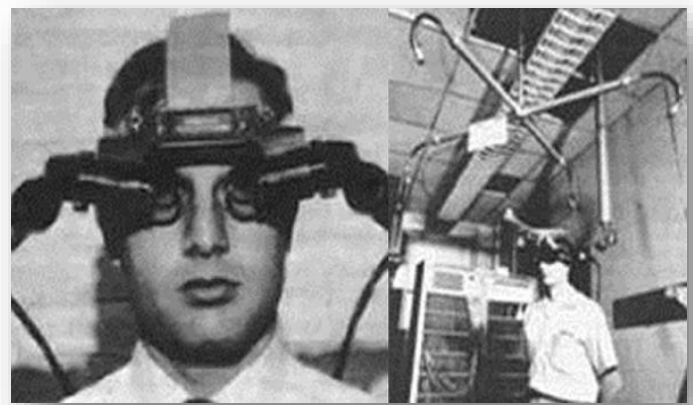
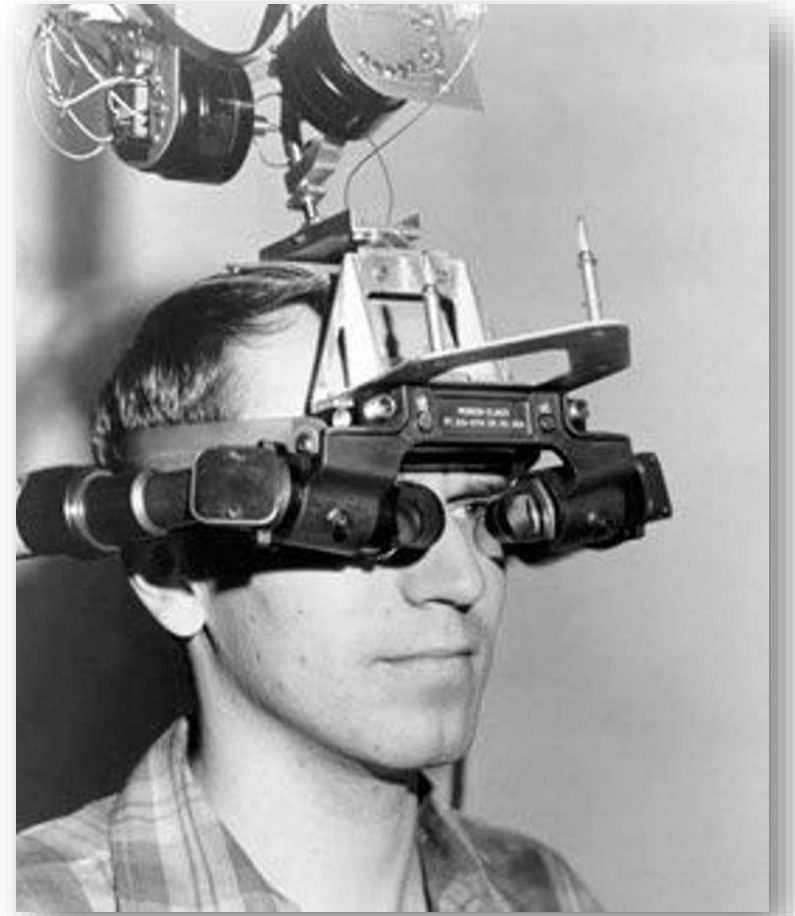
VIRTUAL ENVIRONMENT



Understanding the virtual spectrum

# Didn't we have some of this before?

A quick dive into our virtual history...



It all started with 1950's and 1960's research projects



The VR hype of the early 1990's

Funded! This project was successfully funded on Sep 1, 2012.

★ 2012 ★  
**E3**  
NOMINEE



**9,522**

backers

**\$2,437,429**

pledged of \$250,000 goal

**0**

seconds to go

**Oculus**

Project by

Oculus  
Long Beach, CA

[Contact me](#)

**K** First created · 24 backed

**f** Has not connected Facebook

**@** [oculusvr.com](#)

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The kickstarter that brought VR to the masses...

# Hype or trend...

What changed since the 1990's?



# Strengths and weaknesses

What to expect...



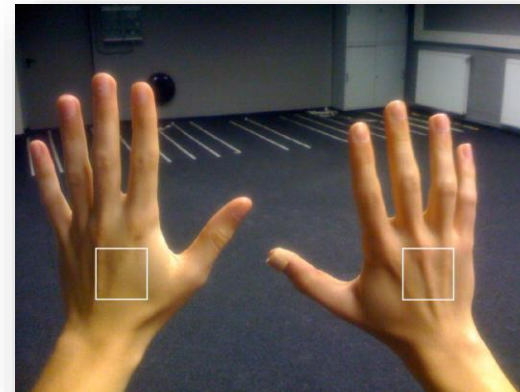


REAL ENVIRONMENT

AUGMENTED REALITY (AR)

AUGMENTED VIRTUALITY (AV)

VIRTUAL ENVIRONMENT



Understanding the virtual spectrum

# Typical use cases

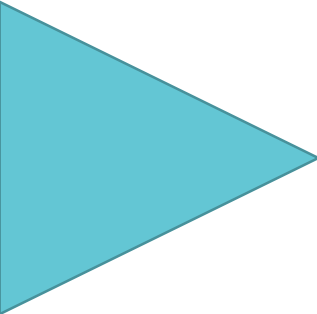
Commercial applications for VR and AR...

# Showcasing your vision

Convincing high level stakeholders with VR...

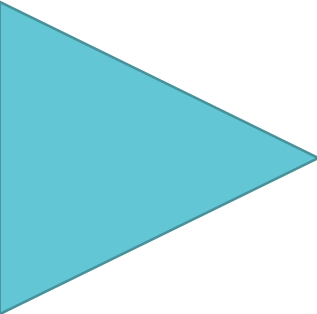


**Or exploring their future base in virtual reality, long before the technology inside it has even been fully built!**





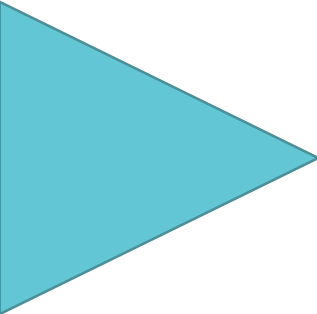
**A vision of the future of PostNL**



# Promotional experiences for brands

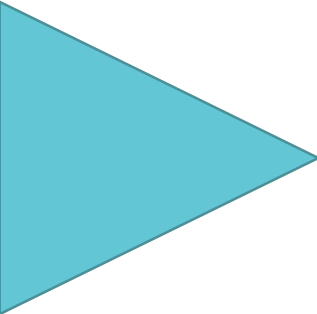
Using the power of VR and AR to surprise consumers





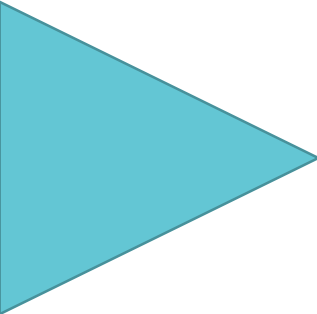
# Virtual training

A new generation of training software powered by VR



# Design & Development

Experience the product before it is built



# Beware the hype!

We're not there yet people...

2012  
**November 25**  
Mo Tu We Th Fr Sa Su  
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13 14 15 16 17 18 19  
20 21 22 23 24 25 26  
27 28 29 30

1,511.7 MB Free    328,722.2 MB Free

Theams    Document    Movies    Images    KM Player    vlc player    Downloads

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Ent...  
Deb...

19:49  
Sunday  
25-11-2012

# Discover the possibilities!

What about all the new game based tech that isn't in the VR trend?





**Game technology holds much greater potential than just VR and AR!**

# Why use Google+?

- What is Google+?
- History of Google+
- Why use Google+?
- Social Media marketing strateg...
- Content marketing vs relations...
- Google+ Updates
- Google+ Circles
- More Google+ functionality
- Google+ Personal profiles
- Examples of Google+ Personal ...
- Google+ Business Pages
- Examples of Google+ Business P...
- Personal Profiles or Business Pa...
- Google+ Audience
- Scenario 1 - Business to business
- Scenario 2 - Business to consumer
- Scenario 3 - Concise Trust
- Scenario 4 - The job seeker
- Exercise 1
- Exercise 2
- Summary

Google+ is yet another Social Media tool, so why would you want to use it?

- Circles
- Facility to edit posts
- Photos and album can be displayed in posts
- All followers have an equal chance of seeing your updates - there is no filtering as in Facebook
- Update 100,000 characters at a time
- Google Hangouts
- Google Authorship
- SEO / Google Local
- It is Google!

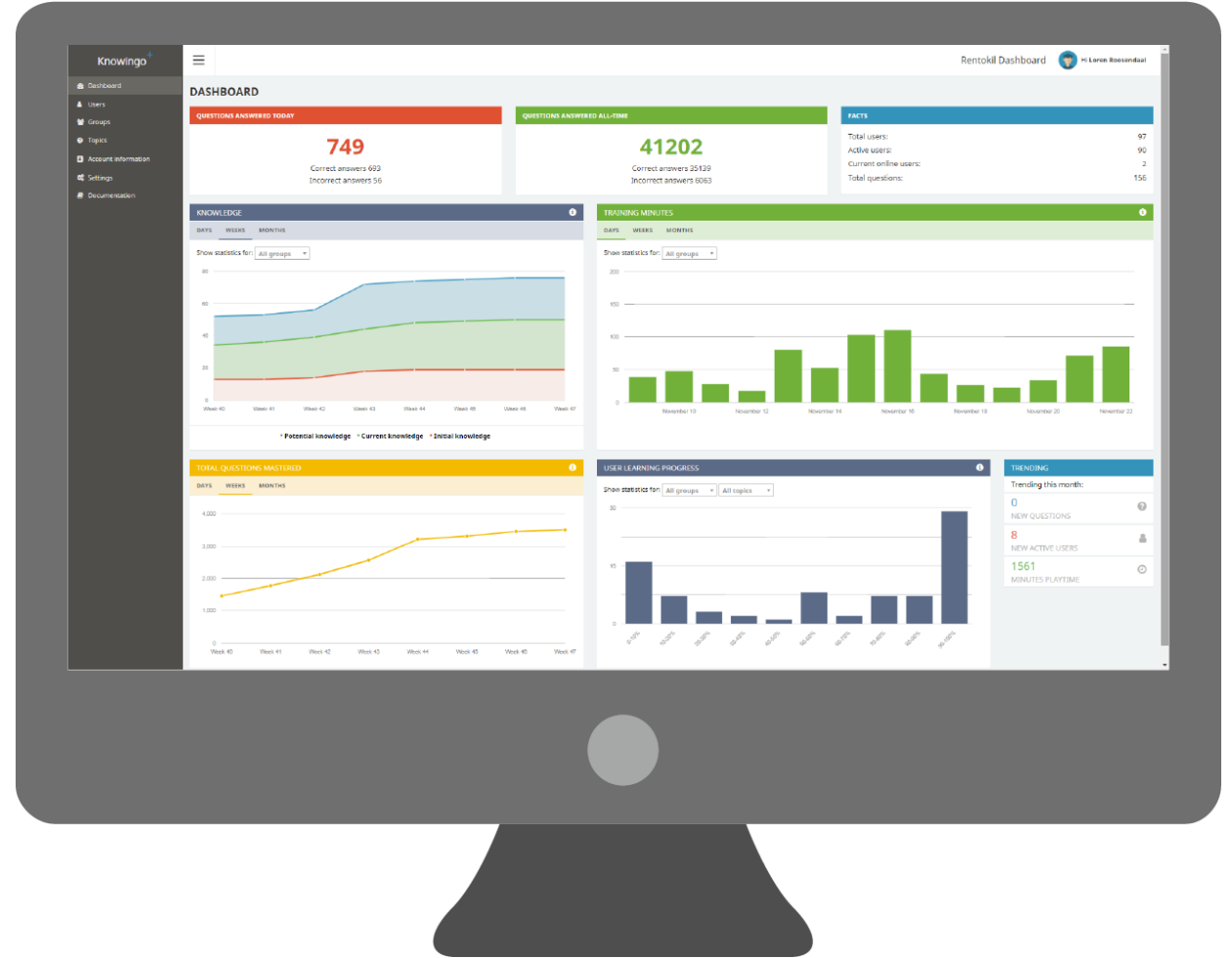
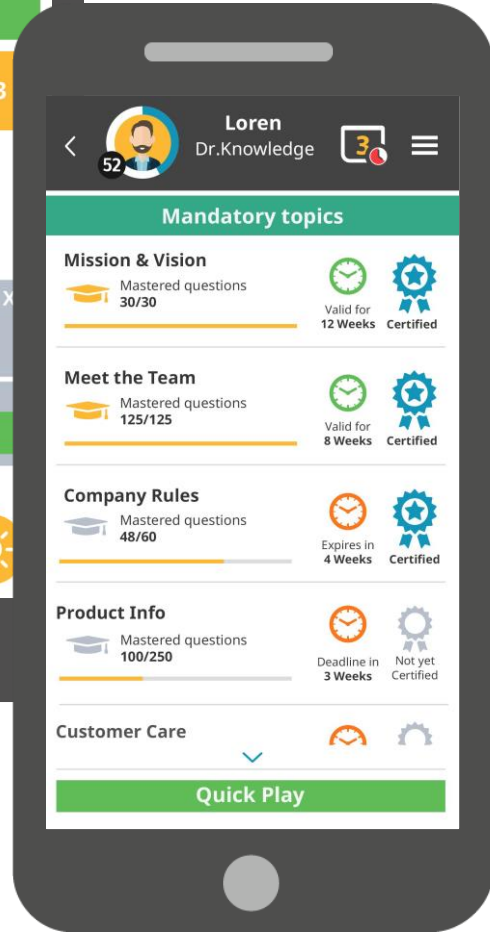
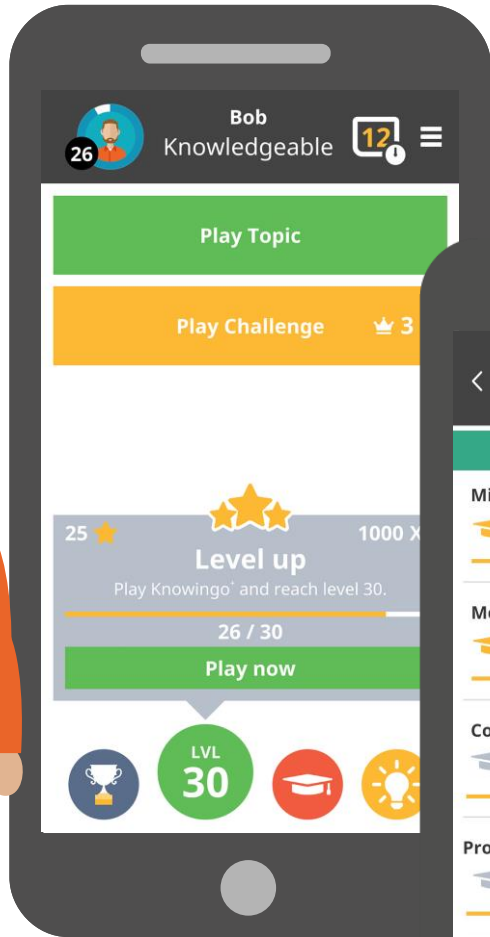
Google+ is also a good tool to use to follow business and individuals to learn and find out about information of interest.

Don't worry if you are not sure what all of this means at this stage! We will explore each of these further as we work through the course.



listen to what mark has to say about social media

What is the value of e-learning?



Game technology powers Knowingo, the worlds most intelligent learning platform!



**What do your employees think?**

▼ **START HERE**

Please check the box below if you do not wish to participate at this time.

I do not wish to participate in the USPS Employee Survey at this time .....

	<b>Extremely Dissatisfied</b>			<b>Extremely Satisfied</b>		<b>Don't Know</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
	▼	▼	▼	▼	▼	▼
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

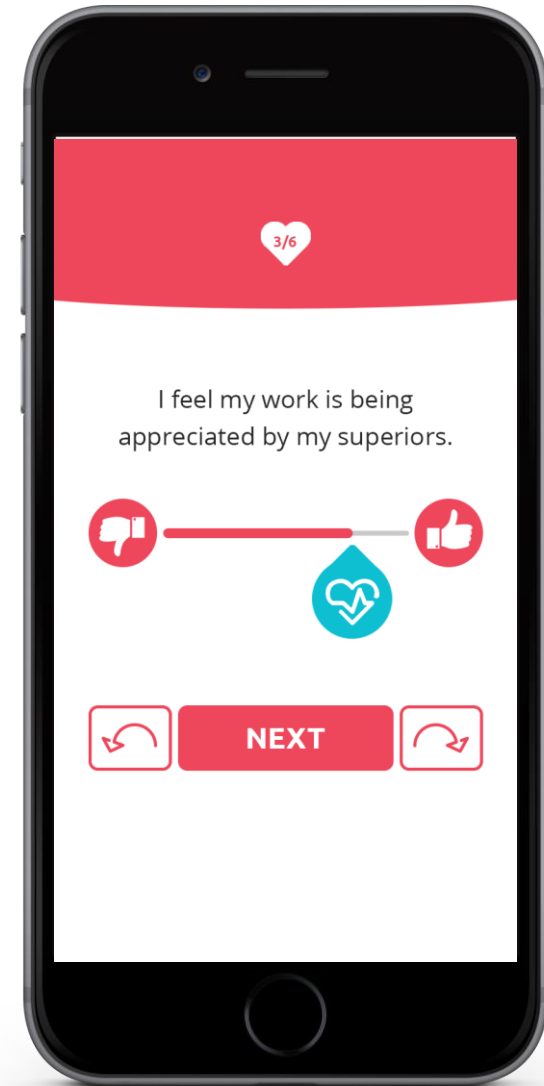
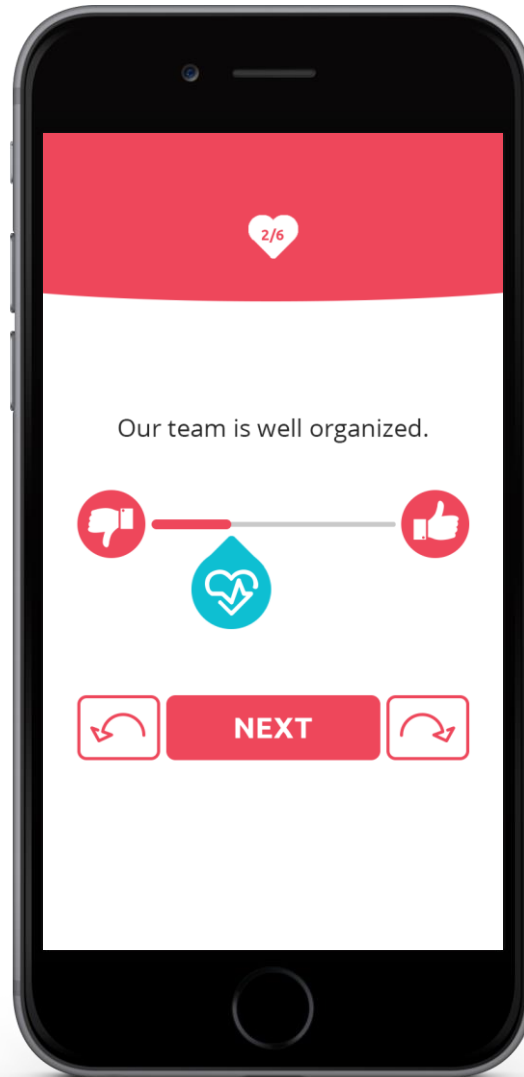
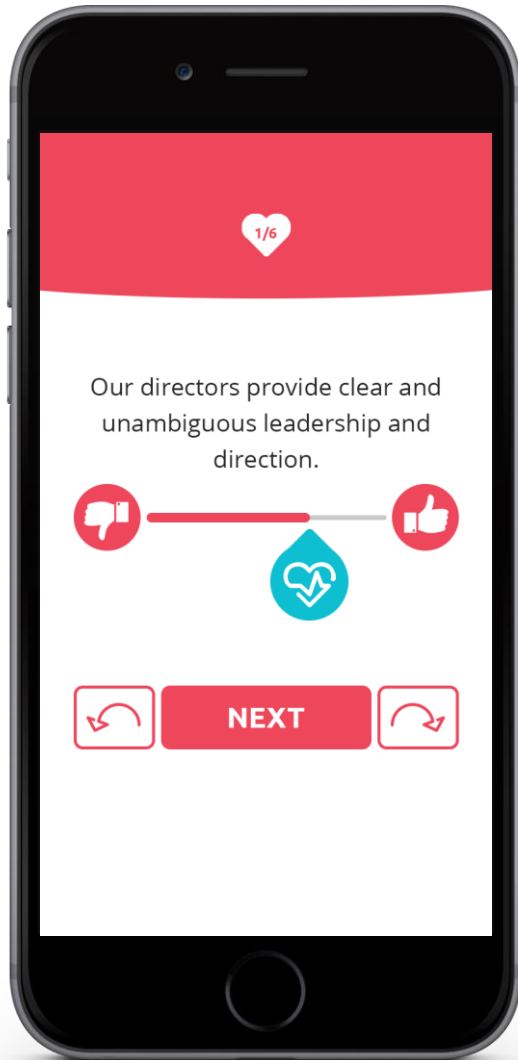
0. On a five-point scale, where 5 means extremely satisfied and 1 means extremely dissatisfied, how satisfied are you with the Postal Service as a place to work? .....

**On a five-point scale, where 5 means strongly agree and 1 means strongly disagree, please rate your level of agreement with the following items.**

	<b>Strongly Disagree</b>			<b>Strongly Agree</b>		<b>Don't Know/ Does Not Apply</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	
	▼	▼	▼	▼	▼	▼
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- 1. I know what is expected of me at work. ....
- 2. I have the materials and equipment I need to do my work right.....
- 3. At work, I have the opportunity to do what I do best every day.....
- 4. In the last seven days, I have received recognition or praise for doing good work.....
- 5. My supervisor, or someone at work, seems to care about me as a person.....
- 6. There is someone at work who encourages my development.....
- 7. At work, my opinions seem to count.....

**Finding out right now is slow, frustrating and innacurate**



**Game technology powers the biggest innovation in employee engagement in decades!**

A man with a beard and mustache, wearing a dark suit jacket over a light-colored striped shirt, is looking towards the right. The background is a blurred office interior with glass partitions and a bright light fixture hanging from the ceiling.

# Want to get in touch?

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