

TECHNOLOGY

OKAY, GOGGLES, HOW FAST AM I GOING NOW?

Winter sports lovers can now get the lowdown on their way down — thanks to goggles with an LCD 'dashboard'. Mark Harris straps on a pair

According to the GPS, I am half a mile from my starting point in Whistler, Canada, moving at 22kph on a chilly -3C day. The device is not on the dashboard of a car but inside a pair of ski goggles. An LCD readout is feeding me information on speed, altitude, temperature and rate of descent as I snowboard through fresh powder.

By some ingenious means, the device will even tell me how long my jumps are — how much air I am grabbing, to all you dudes out there — as I tackle the resort's rollercoaster terrain park. In one sense, these goggles are the inevitable consequence of the continuing miniaturisation of the GPS technology that has already seen it migrate from car dashboards to smartphones. The goggles are also an ingenious application of micro-engineering to help solve a problem faced by thousands of recreational skiers who find themselves in unfamiliar

territory, where it's all too easy to get lost and where the threat of sudden changes in weather is ever present. If you've ever been in a whiteout, unable to see a gloved hand in front of your face, you'll know what I mean. Though the data they display are limited at the moment to the kind of performance measures that will benefit expert skiers, the goggles are being adapted by the developer to show your position on the mountain and the proximity of lifts and restaurants. From the outside, no one would know that I am benefiting from a steady stream of data. The microchip and LCD display are so tiny they fit snugly into goggles that are not perceptibly bigger than ordinary ones. Sadly, in my case, every glance at the screen below my right eye confirms that I am a terrible snowboarder: slow, hesitant and prone to falling over. It's just as well the goggles are water-resistant and shatterproof. And just as well, perhaps, that as well as allowing me to be the first journalist to test the prototype, Recon Instruments, the Vancouver-based company that has developed the goggles, has given pairs to the Canadian Olympic snowboarding team to help with the training for this week's Games.

If they pass this, the toughest of tests, the Recon-Zeal Transcend goggles, as they are known, will go on general sale in the summer (ready for next winter) at a price of about £225.



Information such as speed is displayed on a ¼in LCD that is unobtrusive but seems to hang the data 6ft in front of you when you glance down



Athletes are interested in the Transcend not only for its ability to display speed and timings, but also the way it stores data for future analysis. The goggles can save a full day's ski or snowboard runs into PC software that plots route and performance information through every twist, turn or slalom gate.

That's impressive enough, but the next generation of goggles, expected in two years' time, will truly take this technology into the realms of what was once science fiction. Wirelessly linked to an internet-connected smartphone in your pocket, they will be able to display data from an "augmented reality" app running on the handset. That means you could be seeing a map of the piste overlaid on the real-life view through the goggles and see at a glance the location of the nearest lift or restaurant. There is the potential to receive messages and data via the phone, allowing users to, for example, check

wait times at the lifts and read texts from skiing companions.

Recon Instruments hopes to apply the technology in other fields, producing head-mounted displays for mountain bikers, motocross riders and motorcycle helmets.

"There are not really any big challenges moving to road use," says Hall. "There's more certification and some design changes to be made but, as long as we can prove our system is less intrusive than a dashboard, we're confident that we'll be able to get through."

Meanwhile, the light is fading on the Whistler mountain and I can see the air temperature falling. Time to head home for a hot toddie and see a printout of my day's skiing — overlaid with the help of Recon's software on Google Maps, complete with speed and rate of descent.

Right. On second thoughts, maybe I won't be passing that around in the bar.

ALSO COMING ...



Vuzix Wrap 920AR
\$800 (£500), expected summer 2010
These super-sunglasses overlay the real world with computer-generated graphics and data. Two front-mounted digital cameras feed a 3-D video image through the lenses. Looking as large as a 67in TV seen from 10ft, this visual mash-up could combine animated characters with real people, offer tourist information and usher in new types of interactive games.

Lumus Video Eyeglasses
\$200-\$300 (£130-£190), expected late 2010

These specs magnify an electronic image generated in the frame, making it seem as if a 60in screen is floating 10ft in front of you. Expect sat nav makers to use the tech to show ghostly arrows to guide you.

Kopin Golden-i
\$1,500-\$2,000 (£1,000-£1,300), expected summer 2010

Not just a head-mounted display but a wearable link to a computer. This Bluetooth gadget will use your mobile to establish a two-way connection with your desktop PC wherever you are in the world, reading out emails and documents (the 0.4in screen is too small to show fine detail). Control is through voice recognition.



PLANET OF THE APPS

Matt Bingham



We find all the best software for your smartphone. This week: apps for Valentine's Day.



SEND eFLOWERS 59p; iPhone, Touch
Happy Valentine's Day. If that's come as a shock, download

Send eFlowers right now and email one of the app's bouquets to your better half — which might just buy you enough time to dash out to the garage and buy the real thing. You can also send virtual arrangements as a multimedia text, adding your own message before closing with those ageless words of love, "Sent from my iPhone".



CANDY VALENTINE HEARTS 59p; iPhone, Touch
Emailing a personal Love Heart might be a

cheesier choice than an ebouquet — if that's possible — but this is actually the more sophisticated app. You can inscribe your message onto a sweet, set against some attractive backgrounds (you'll need to keep your message to about 24 characters or less). Save it to your photo library before sending it via email or MMS. And don't skip on the 59p and install the free Lite version, because it lacks those pretty backgrounds. You wouldn't want her to think you were a cheapskate, after all.



LOVE POEM GENERATOR Free; iPhone, Touch

If a digital sweet is too small a canvas for your feelings, choose here from dozens of pre-programmed rhymes to assemble a nine-line composition that would just about pass muster inside a greetings card, then email it to your belle. Classier girls might prefer one of the 40 classic — and conveniently out-of-copyright — works in the free Love Poems app, from Shakespeare to DH Lawrence.



GOOD FOOD GUIDE £4.99; iPhone, Touch

Act quickly and you might still be able to book a restaurant table for tonight. The Good Food Guide 2010 carries 1,200 full restaurant reviews and many more readers' recommendations. Unlike most app versions of print publications, this has some genuine interactivity built in, including the option to use GPS to find nearby venues then call up a Google Map to get you there, and single-touch buttons to phone restaurants or view their websites. You can also share details of an eaterie with friends through email or Twitter and, if registered, submit a review. Coverage, however, can be a little patchy outside the big cities, and it's quite expensive for an app that's going to be out of date in a year.



iPROPOSE 59p; iPhone, Touch

If the evening is going well, download this to your loved one's phone. Up pops a wedding ring icon with two buttons. If she clicks "No", the sound of sobbing will drown out your real tears. If she clicks on "Yes", you — and the rest of the restaurant — will be treated to a round of celebratory cheers. Then all you need to do is search the App Store for the free ChurchFinder.



The smart goggles also measure the length of your jumps

Getty Images

GAMES

New titles this week

Super Monkey Ball: Step and Roll
★★★★☆
Wii; £35. Age 3

Those agile apes are back with their tricky-to-control balls for new adventures. The main game still involves primates, precariously balanced inside spheres, rolling through increasingly hazardous courses. You navigate ramps, chutes and narrow pathways, collecting bananas along the way. Where the new game differs from its predecessor is that you can now do so, if you prefer, by using the Wii Fit balance board instead of a conventional controller. Doing so requires frantically leaning left and right, forwards and backwards to keep the ball on track. This lacks the sensitivity of a regular joypad, but Step and Roll does take it easy on you — at first. Soon, though, the difficulty ramps up, with teleportation gates to find and fiendish traps to avoid. You'll swiftly grow exasperated, but don't think of this as a normal game; rather, it is a humiliating spectator sport for the whole family to savour. And if your brood isn't transfixed by the kind of unfortunate spectacle most dads save for wedding discos, they'll love the selection of four-player mini-games. Step and Roll is a barrel-load of monkey fun. **Stuart Andrews**



Star Trek Online
★★★★☆
PC; £30. Age 12

As the title suggests, this Star Trek multiplayer adventure happens online, although you must install the game on your computer and pay £8.99 a month. Imagine World of Warcraft for Trekkies. You start by choosing a name, a job — and a species; then the action, which is played from a third-person viewpoint, begins. Your orders inevitably involve taking out invading enemies — initially the Borg — in various combat scenarios, from fisticuffs to space dogfights. As you progress and your character develops, you are assigned fancier weapons and also computer-controlled officers, which introduces the crucial tactical element of managing a team. Graphics are sharp rather than sumptuous, though, and the controls are far too fiddly. The biggest problem is that interaction with other real players — crucial in an online title — is mostly limited to shooting the heck out of adjacent Borg vessels rather than any involved team action. Ultimately this overpriced nerd-fest is more Search for Spock than Wrath of Khan. **David Phelan**



IPHONE GAMING

Stuart Dredge
reviews adventure games for iPhone and iPod Touch

TEHRA DARK WARRIOR
★★★★☆
£2.39

Tehra is a character for anyone who thinks Lara Croft is overdressed. Get past her clichéd fantasy looks and you'll find the Dark Warrior an engaging heroine as you hack and slash your way through endless ranks of orcs, trolls and other ghouls. The graphics are great and the controls, while complicated, at least conform to what is becoming a standard iPhone layout of a virtual plus-sign-shaped movement controller in one corner of the screen and buttons in the other. Impressive boss enemies and an atmospheric soundtrack add to the overall quality.



RAVENSWORD: THE FALLEN KING
★★★★☆
£2.99

Of all the iPhone adventure games, Ravensword is the most ambitious, a blend of over-the-shoulder action and role-playing that immerses you in a fantasy world where you have to battle monsters, find treasure and, naturally, develop your character's powers. The 3-D graphics wouldn't look out of place on a PC, and great effort has been taken to tackle one of the biggest problems with role-playing games: how to keep the storyline fresh as the player slowly builds their character. In this case it's possible to play for weeks and still not discover all the characters and locations in Ravensword's sprawling landscape.



ASSASSIN'S CREED II: DISCOVERY
★★★★☆
£3.99

More evidence that the iPhone is being taken seriously by the big games companies: this is no cut-down of the console version, released late last year, but a new "untold chapter". Set in the same Renaissance era as its big brother, it offers a similar mix of stealthy assassinations and hectic chases through cities — in which you are sometimes the pursuer and sometimes the pursued. The graphics, though basically 2-D, are top notch and you won't miss your console joypad too much, as the controls have been designed to take good advantage of the touchscreen, although they can be fiddly. With dozens of tasks to complete, this is a killer game.

