METHOD OF SHARING ACTION HIGHLIGHTS AND A SPORTS COMPLEX FOR PROVIDING SHAREABLE ACTION

The invention relates to a sports complex comprising a compact golf course that includes a first discrete driving area and a second discrete fairway and green, complete in preferred embodiments with a plurality of bunkers, the areas being adapted so that, in combination, they functionally simulate a golf course. Also disclosed is a method of capturing action by means of cameras on the course and compiling a video highlights package for individual players to share on social media.
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METHOD OF SHARING ACTION HIGHLIGHTS AND
A SPORTS COMPLEX FOR PROVIDING SHAREABLE ACTION

Field of invention

[001] This invention relates to the sharing of video recordings of events, in particular of action in an outdoor golf-like game, and to a sports facility for playing the game in a manner suitable for capturing and sharing footage of the action.

Background to the invention

[002] Present day time pressures make shortened forms of various sports disciplines attractive to casual players and big match spectators alike - hence the earlier abbreviation of 18 holes of golf into a chip-and-putt format of par-3 courses of 9 holes, for example, and even the development of 'mini-golf, often referred to as 'putt-putt', played on synthetic novelty courses using putters only. Despite this, because of the extent of the real estate required for a full golf course (80 to 120 acre courses are considered standard) and the cost of maintaining it, the game tends to remain elitist and generally for the wealthier members of society.

[003] In regard to other sports, the gentlemanly game of cricket has been contracted from the 5-day test format to the one-day form in the 1960s and recently to the 20-over "Twenty20" or "T20" form lasting barely 3 hours. There are also indoor versions for social and not-so-social players.

[004] In association football, one now finds indoor versions and 5-a-side formats, for any level of player, from amateur to international. This has mirrored the development of indoor hockey. Rugby union has developed an all action 7-a-side format that is over in minutes, instead of lasting at least 80 minutes (of which little was actually taken up in play). Tennis recently saw the introduction of an 'instant' format. The space limitations of the venues used for many of the condensed formats of these team sports require a reduction in the number of participants in the teams.
Although the rules of the game may differ from the traditional versions, the equipment generally remains at least very much the same.

The rise of social media platforms has enabled action from such sporting events recorded by users of mobile telephones and similar devices immediately to upload their experiences and share them with particular addressees or with the world in general.

Online gaming has enabled players equipped with suitable hardware and software to compete against each other over the internet.

Videogame console publishers allow for collection of player performance statistics for historical comparison and immediate real time publication at game's end via internet and social media. High volumes of people in online network groups follow progress of competitions live via subscribing to online viewer portals.

**Objects of the invention**

It is an object of this invention to address the shortcomings of the prior art and, in doing so, to provide sporting complexes through the use of which users are able to share their experiences with others who are remotely located.

Another object is to provide a digital video souvenir for the participant, including one that the participant is permitted to edit.

A further object of the invention is to provide efficient methods of enabling an end user to compile and share, such as via social media, a video record of an event, such as a game played at a sports complex of the invention.

Still further, it is an object of the invention to provide means for participants who are located geographically remotely from each other to compete against each other using identical or near identical complexes.
YET ANOTHER OBJECT OF THE INVENTION IS TO PROVIDE AN ACCELERATED GAME FORMAT RESEMBLING GOLF, WITHOUT REDUCING THE NUMBER OF PLAYERS PARTICIPATING OR THE NUMBER OF SHOTS PLAYED RELATIVE TO A PAR ROUND ON AN 18 HOLE GOLF COURSE.

THE PRECEDING DISCUSSION OF THE BACKGROUND TO THE INVENTION IS INTENDED TO FACILITATE AN UNDERSTANDING OF THE PRESENT INVENTION. HOWEVER, IT SHOULD BE APPRECIATED THAT THE DISCUSSION IS NOT AN ACKNOWLEDGEMENT OR ADMITMENT THAT ANY OF THE MATERIAL REFERRED TO WAS PART OF THE COMMON GENERAL KNOWLEDGE AS UNDERSTOOD IN AUSTRALIA AT THE PRIORITY DATE OF THE PRESENT APPLICATION.

FURTHER, AND UNLESS THE CONTEXT CLEARLY REQUIRES OTHERWISE, THROUGHOUT THE DESCRIPTION AND THE CLAIMS, THE WORDS 'COMPRISSE', 'COMPRISING', AND THE LIKE ARE TO BE CONSTRUED IN AN INCLUSIVE SENSE - THAT IS TO SAY, IN THE SENSE OF "INCLUDING, BUT NOT BEING LIMITED TO" - AS OPPOSED TO AN EXCLUSIVE OR EXHAUSTIVE SENSE - THAT IS TO SAY MEANING "INCLUDING THIS AND NOTHING ELSE". USE OF GENDER-SPECIFIC PRONOUNS IS NOT INTENDED TO EXCLUDE PARTICIPATION BY PLAYERS OF ANOTHER GENDER.

SUMMARY OF INVENTION

ACCORDING TO A FIRST ASPECT OF THE INVENTION, THERE IS PROVIDED A SPORTS COMPLEX, COMPRISING A COMPACT GOLF COURSE COMPRISING FIRST DISCRETE AREA AND A SECOND DISCRETE AREA, THE AREAS BEING ADAPTED SO THAT, IN COMBINATION, THEY FUNCTIONALLY SIMULATE A GOLF COURSE. A GOLFLING HOLE IN CONVENTIONAL TERMS COMPRIS A TEE, A FAIRWAY AND A GREEN WITH A BALL-RECEIVING CUP RECESSED INTO IT. THE COMPACT GOLF COURSE OF THE INVENTION INCLUDES THESE CONVENTIONAL ELEMENTS IN AN ADAPTED FORM.

THE COMPLEX MAY BE A STAND-ALONE (FOR ACCELERATED GAME PLAY ONLY) OR A HYBRID MODEL WHICH IS ADAPTED FOR RETRO-FITTING TO AN EXISTING GOLF COURSE LAYOUT SO THAT CONVENTIONAL GOLF AND THE ACCELERATED GOLF GAME CAN BE PLAYED THERE.

IN A PREFERRED FORM OF THE INVENTION, THE DISCRETE AREAS INCLUDE MARKINGS THAT DEFINE DISCRETE STATIONS FROM WHICH A PARTICIPATING PLAYER IS REQUIRED TO HIT A BALL ACCORDING TO THE MANNER OF PLAYING A GOLF SHOT.
[0019] Further preferably the stations are divided into a plurality of assignable hitting bays located side by side. The bays may have a surface covering that differs from that of immediately adjacent non-hitting areas.

[0020] In a preferred embodiment, adjacent bays are separated by a console. The console preferably includes a stand for supporting a mobile smartphone. Further preferably, the console includes battery charging means for a smartphone battery.

[0021] In a further preferred form of the invention, the complex comprises a plurality of second discrete areas.

[0022] Preferably, the complex has a footprint of 40 acres of land, or less. Preferably the compact course is laid on 30 acres of land or less. Preferably, the venue comprises no more than six second discrete areas and a shared first discrete area.

[0023] In a further preferred form of the invention, the second discrete area comprises a putting green area, the green area having a putting surface in to which a plurality of cups is recessed. Preferably, the plurality comprises at least 3 cups. The cups are given distinguishing means. The distinguishing means relates to a reward that is to be given to a player whose ball lands in the cup during play.

[0024] Further preferably, the plurality comprises 9 cups.

[0025] In a preferred further form of the invention, the second discrete areas are adapted for ease of replication at a plurality of sites. The form of adaptation relates to choices of materials of construction and surface coatings. It may also include design features suited to incorporation at a differing position or orientation. For example, one replicated area may be a mirror image of another.

[0026] Each replicated area may display minor tolerances for differences in local terrain and flora, hitting station orientations and elevations, associated sand bunker orientation, depth of bunker and location relative to an associated green, and the size, slope, elevation and grass of said green, as well as speed of ball on putting surface.
Preferably, the first area comprises a marked peripherally located zone and an adjacent central corridor area.

A putting green of the invention preferably includes two or more cups differing from each other according to physical dimension, such as cup diameter and indicia, for example colour. In an example, there are provided three yellow cups with fifteen inch diameters in conjunction with three yellow pins and flags, three red cups with eight inch diameters in conjunction with three red pins and flags and three blue cups with four and a quarter inch diameters in conjunction with three blue pins and flags.

Preferably, the first area comprises a marked peripherally located zone and an adjacent central corridor area.

In a preferred form of the invention, the second area has demarcated thereon three or more hitting stations corresponding to fairway locations, a chip zone and a bunker play zone which includes an associated green.

In a preferred embodiment, the bunker play zone includes at least one recess defining a bunker. The bunker comprises a floor at a level below that of adjacent peripheral terrain and has at least one hitting station demarcated therein. Preferably sufficient zones are located in the bunker to permit safe access for up to 4 and preferably up to six players at a time. In embodiments, the bunker is constructed and sized sufficiently to accommodate in excess of 6 players simultaneously. In preferred embodiments, the compact course comprises a plurality of bunkers.

In a preferred embodiment, the complex of the invention includes means for issuing golf balls to players, wherein each player in a game has a set of balls having indicia for the set that distinguished the balls in the set from those of a different set in the same game. Preferably, the balls in a first set are of a different colour to balls in a second set being used in the same game.
In a further preferred form of the invention, the complex includes said golf balls.

In an embodiment, the consoles of the hitting bays at the first area comprise means for placing a ball on a tee.

In a further preferred form of the invention, the complex includes a digital video image-capturing system to capture images of events involving player action. In a preferred embodiment, the system comprises cameras placed at fixed positions in relation to the first and second areas. It further comprises means for managing, editing and storing electronic files containing the images captured.

In a still further preferred form of the invention, the system includes a digital systems control centre having a control computer programmed with first application software for receiving and storing files of captured video images and tagging them with details relating to the circumstances of their capture.

In a preferred embodiment, the camera system comprises sound recording means.

In a still further preferred form of the invention, the system includes a control centre having a control computer programmed with first application software for receiving and storing files of captured video images and tagging them with details relating to the circumstances of their capture.

The complex further includes second application software for loading on and running on a mobile device associated with a game participant at the complex.

According to a second aspect of the invention there is provided a method of conveying information between a player's smartphone application and a computer at a control centre, the method comprising:

a. on a computer running first application software, assigning a human player to a hitting bay on a compact golf course;
b. by the computer, transmitting the hitting bay assignment to mobile device associated with the player and running second application software;

c. after the player has hit a plurality of balls from the assigned hitting bay, causing the computer to transmit information, based on location of the hit balls, to the player’s mobile device to cause the player’s mobile device to display in real time a scoring and reward system for playing the game.

[0041] In a preferred form of the invention, each ball is equipped with an internal transponder.

[0042] In an embodiment, the method includes providing means for monitoring signals from the transponder, using signals received for determining the transponder’s actual position and hence determining the position of the associated ball.

[0043] In a preferred embodiment, the method further comprises using camera-captured images for determining a ball’s actual position.

[0044] In another embodiment, the method of identifying shot result is provided by a supervising person who visually identifies and records a ball location result into a mobile communications device, for example a tablet computer device that communicates said result to the control centre.

[0045] Further, according to the invention, said control centre in turn sends information to the player’s smartphone application to update game statistics, for example real time scoring. Optionally from the information received, the phone application acting on programming instructions to tally league ladders, awards and trophies achieved, and personal best results. The information is transmitted within moments of a result being recorded, whether manually or by automated means, such as the transponder monitor and camera network.

[0046] Further, the method includes generating a reward notification for display on the mobile device of a player whose shot has earned points according to rules of the game.
According to a third aspect of the invention there is provided a method of preparing a digital recording of an experience of an event participant, the method comprising steps of:

a. generating high definition video clips of camera-captured action and corresponding reduced file-size versions of the clips,

b. communicating the reduced file-size versions to a recipient smartphone device application;

c. allowing a user of the recipient device to view the captured action in the reduced file-size versions and select from these files for inclusion in a video movie; and

d. causing notification to a video-processing computer of the files selected and causing the computer to generate a high definition movie comprising the high definition versions of the user-selected files.

Preferably the reduced file-size versions are provided in thumbnail form suitable for viewing on a mobile device. The thumbnail files are of lower resolution than the clips.

In a preferred form of the invention, the method includes storing the higher resolution video clips on a server. Preferably, storage duration will not exceed two months.

Further, in exercising the method, open source special effects widgets may be provided for plugging-in to the smartphone application software, for allowing developers to create audio/visual special effects program for users to either update the application for free or acquire an in-app widget allowing the recipient to edit thumbnail files, add special effect widgets, add music and audio bits and drop edited clips, special effects and audio into a final clip timeline generated by means of a smartphone application macro-editing function. The editing instructions are sent to the systems control centre via internet.
The method may further include causing a control centre computer to process editing instructions received from a user's smartphone application and generate a high definition format comprising the final clip versions of the user-selected files, and optionally including edited game highlights, special effects widgets and audio.

In another step contemplated, the method includes providing commercial micro-advertising clips, preferably for up to 30 seconds duration, to be inserted by the control computer first application software into the user's final clip version during the control centre rendering process.

Preferably the control centre storage computer sends a link to a user's final highlight clip in HD format via any one or more of a smartphone application, a social media site and user's preferred email address. Notably, the link can be shared via other social media platforms.

In a further preferred embodiment, the method extends to including in the second application an encoded media player compatible across a multiplicity of smart devices. By this step, a user and a user's friends, who may wish to view highlights can access them by downloading a smartphone application with the encoded media player to view highlights, or by viewing highlights via a third party social media site or a digital web channel.

In a further preferred form of the invention, the method includes providing editing function means for a user to select and insert into a storyboard template, thumbnail representations of desired video clips from a menu showing said thumbnail representations.

The invention includes transmitting data relating to storyboard content from the mobile device to the computer. The data includes editing instructions for the computer to execute.

Said storyboard data is translated by the computer using suitable video editing software, into a high definition video package of the user-selected clips.
In a further aspect, the invention provides a method of facilitating competitive golf games in which first and second participants respectively play in different geographical locations contemporaneously, wherein the method includes the step of providing first and second (and preferably a plurality of) golf complexes each having a substantially identical compact course construction. The complexes may be stand-alone or hybridised with an existing course complex. Preferably the method includes replicating playing conditions at each hole.

Preferably, the method further includes furnishing the participants with a mobile telephone running an application that sends data relating to the participant's performance and receives data relating to the performance of a fellow competitor, and provides a comparison of the performance in graphical display on a display screen of the phone. In a preferred embodiment, the method includes furnishing a game steward with a mobile device networked with the devices of the participants.

According to a still further aspect of the invention, there is provided a network of sports complexes each having a compact golf course which is substantially identical in each complex in the network. The compact golf course may include a first, driving area and a second playing area comprising a plurality of demarcated fairway hitting stations, a chip zone, a bunker play zone and associated green.

The network preferably further includes a computer system and application software to process data exchange in the network. Digital video data files storage is off-site.

Further according to this aspect, the complexes may have additional second areas that are not identical to each other.

Brief description of drawings

In order that the invention may be readily understood, and put into practical effect, reference will now be made to the accompanying figures. Thus:
Figure 1 shows in schematic plan view a preferred embodiment of the sports complex of this invention.

Figure 2 is a schematic diagram of a data systems integration plan of the invention.

Figure 3 is a schematic view of exemplary layouts of playing areas of the invention.

Figure 4 is an image of a screen display generated by an application used in the exercising of the invention.

Figure 5 is a schematic diagram showing a data communication system used in an embodiment of the invention.

Figure 6 is a schematic diagram showing a data communication system used in an alternative embodiment to that of Figure 5.

Figure 7 a schematic diagram showing a data communication system used in a further embodiment of the invention.

Detailed description of an embodiment of the invention

[0064] According to this invention, a sporting complex is provided for playing an accelerated golf game. The complex comprises a first discrete demarcated area defining; a driving range; used as a qualifying area to determine how many chip shots and bunker shots players will perform later in their game; and at least one second discrete area. Together these discrete areas define a "compact golf course" which then includes a number of fairway-like hitting stations, a chipping zone, at least one bunker play zone and an associated golf green area. The green preferably has between three and eighteen recessed cups for receiving golf balls.

[0065] Together, these simulate an entire "conventional" golf course, where a conventional golf hole essentially comprises a tee area where play commences, a fairway and a green, into which a single cup is recessed for receiving a player's ball. The conventional hole will also be likely to include at least one bunker and may also present a water hazard or other obstacle. A collection of these holes played in a sequential order represent a conventional golf course. Conventionally, players in a group take separate turns in striking a single ball each with a club using a single golf ball from a designated
tee area to the green. Along the fairway players take turns in hitting their single golf ball from variable locations, determined by the place at which the ball from their previous shot comes to rest, until they have putted the ball into a green that has one cup recessed into the surface. A conventional game of golf normally requires; a group of 4 players; a time duration of between three to five hours to complete eighteen holes of golf.

[0066] In the sport for which the apparatus of the invention is intended, the action of an individual game can take place and be completed by participating at the first discrete area comprising a driving range; then sequentially at no more than one second discrete area; being the remainder of a single compact course, where players execute multiple shots towards the associated green, using multiple balls from simulated fairway hitting stations located at various set distances from the associated green and from bunker depressions situated around the green.

[0067] Essentially, a game is played in three phases - the first on the discrete area defining the range; the second is localised to a single hole being the second area of a compact golf course, these discrete areas together representing an entire conventional course, where fairway shots, chip shots and bunker play are played to the associated single green. The third phase is putting golf balls into a choice of between six and eighteen recessed cups located at the associated green. Points are scored in differing numbers according to the cup into which the ball is sunk.

[0068] During the first phase, a player should hit between six and ten balls from the driving range area.

[0069] During the 2nd phase, players hit six balls from each of the fairway hit zones followed by between six and twelve shots from the chip and bunker play zones collectively. Balls that remained on the associated green are still in play and score 2 points. Balls that missed associated green are picked up and are declared out of play, scoring zero points.
During the 3rd and final phase, players’ balls that finished on the associated green are putted into the six to eighteen recessed cups. Players are allowed one putt attempt per ball. Cups are assigned different values with points assigned to each player should they one putt ball into hole. If they miss the cup with first putt, the ball is picked up, and the ball scores zero points.

The winning score scores the most points.

Since the action is localised to a single hole representing all the holes of an entire conventional course, there is no need for conventional travel time between holes. The only minor travel time required is from the first discrete area defining the range hitting bay area to the second discrete area of the compact course, allocated to players for a particular game. This facilitates completion of the game within a set time, for example an hour, as will be described below.

In the sport for which the apparatus of the invention is intended, it is preferred that complexes include variety of compact course layouts of various difficulties for the second discrete area, so as to cater for players’ diverse skill levels. The variations of the compact course layouts may include any one or more of the following:

a. the distances the fairway hit zones are from the centre of associated green,

b. the orientation of associated green to the hitting stations,

c. the orientation and distances the chip zones are located from the edge of associated green,

d. bunker play zones difficulty - for example the depth of bunker or the distance bunker is from associated green,

e. putting green difficulty - for example the size and slope, cup placements and finally the varying cup diameters of the "novice" compact golf course layouts greens.

The compact course design and game format (which is explained below) allow for all shots made by each participating player to be digitally recorded in high definition.
format by means of the motion cameras and other computer hardware and software. At the first discrete demarcated area defining the driving range, each of the driving range bays has a number of fixed cameras installed in strategic positions to capture all player shots. Camera shot production angles are preferably, but not exclusively, from behind and facing each player, in order to capture individuals’ swings and group action. The video captured by these cameras is able to be provided to the player or his coach for later analysis. An additional camera located about 30° out in front of a line defined by the open front ends of the driving range bays enables the capturing of a group shot of the players during their particular game.

[0075] At second discrete area defining a the second area of the compact course including a number of fairway hitting stations, a chip zone, at least one bunker zone a number of fixed cameras are installed in strategic positions, to capture all player shots. Camera shot production angles are preferably, but not exclusively, from behind and facing each player, in order to capture individuals’ swings and group action. The video captured by these cameras is able to be provided to the player or his coach for later analysis. An additional camera located about 30° out in front of the driving range bays enables the capturing of a group shot of the players during their particular game.

[0076] At second discrete area, which includes a golf green area with between six and eighteen cups recessed cups for receiving golf balls, a number of fixed cameras are installed in strategic positions, to capture all player balls finishing on the green and all subsequent putting action. Camera shot production angles are preferably, but not exclusively, set for capturing three or more cups with each camera. The video captured by these cameras is able to be provided to the player or his coach for later analysis.

[0077] The complex preferably includes more than one hole retro-fitted to simulate a compact course. Together these holes/simulated compact courses do not define a golf 'course' in the traditional golfing sense, since the game rules and game play provide for the game to be completed using only one such compact course. In the game, the driving range serves as a common landing area for receiving the shots from each player, to determine how many chip shots and bunker shots players will perform later in their
game; irrespective of the second area of the compact course at which that player subsequently plays.

[0078] The second areas of the compact courses are not located relative to each other in a way that would facilitate a player moving from one to the other sequentially, but are configured for a player to complete their game using the driving range and one second area of the compact course to which he has been allocated.

[0079] Compact course second areas are designed and positioned at various locations within the outdoor area of a complex; dependent on factors such as local environments and terrains, with the view of enabling efficient land use with minimal disruption to local terrain and flora.

[0080] Slight variances in driving range sizes, fairway hit zone elevations and distance to greens, bunker sizes and depths and green sizes, slopes and approach angles are acceptable within a 25% tolerance dependent on whether a complex is a hybrid retro-fit of an existing golf course or new land development. This thereby enables a standardised driving range and second area compact course playing environment for various complex locations.

[0081] The fairway hitting stations and chip zones found in the compact courses are laid with synthetic grass, for example Turbo-Golf IP™ grass for low maintenance and reduced water requirements. The fairway hitting stations are not flat areas, but are intended to replicate similar slope and lies conditions that may be encountered at a conventional golf course.

[0082] The fairway hitting stations and chip stations found in the compact courses have replaceable hitting mats. Typically there will be four hitting bays and mats per zone, allowing every player in the group to play from hitting station at the same time.

[0083] The compact course's putting green surfaces are either natural grass or synthetic grass.

[0084] The putting green will have at least one greenside bunker.
[0085] Preferably, each putting green has nine cups or pin placements in three groups of varying difficulty and points reward: For example:

a. A blue cup / pin / flag represents the greatest degree of difficulty in cup placement and attract five points award to the player who putts ball in cup;

b. A red cup / pin / flag represents a medium relative difficulty and attract three points award to the player who putts ball in cup;

c. A yellow cup / pin / flag represents the easiest degree of difficulty and attract one points award to the player who putts ball in cup;

[0086] Digital video cameras are provided to capture events on the second discrete areas of the compact golf courses. They are preferably built-in, in the sense of being fixed at particular selected constant positions where they can follow the participants, record their shots and the flight and travel of each ball. They do not need then to be repositioned as play progresses. This enables complex to be broadcast ready with broadcast productions able to be achieved at a relatively low cost, using the visual data and sound captured. However, tracks and overhead cables, including optic fibre cables, may be installed alternatively, or in addition, to facilitate repositioning in preferred situations. The repositioning can be accomplished manually, such as by a human assistant known as a game steward, or may be managed automatically from the control centre, including by game monitoring and management software.

[0087] To facilitate night-time play, the complex is further equipped with floodlighting. The floodlights are preferably a combination of tower and berm lighting solutions, depending on customised designs for each location and applicable engineering and building codes and standards.

[0088] The invention further harnesses cellular (mobile) telephone technology and provides players who subscribe to the game management system with application software to run on their smartphones prior to, during and after their individual games.
The smartphone technology includes interface means for inputting player registration information, team information and player and, where applicable, team profiles. It also provides game booking facilities. In the course of setting up and playing a game, the software technology provides instructions to the players and an appointed group steward of the complex, who is equipped with a tablet computer for performing certain administrative and game management functions, as will be described further. By way of example, the software is used for issuing instructions regarding player hitting bay allocations for providing game scoring functionality, camera switching functions, recording and notifying a player of awards earned, and personal best achievements.

The mobile phone app further includes a macro-editor for selecting and processing a number of small game highlight thumbnail clips captured via the complex's installed digital camera system. The thumbnails are personally edited and dropped into final highlight clip timeline by the player.

The editing instructions data from the mobile phone app macro-editor is sent via the internet to the data management computer storage resource where the video files are edited following the players personal editing preferences. The finished edited highlight is produced and the link to the highlight is sent to player for review and sharing via social media and email.

It further enables the player and player's social media and email connected friends to view edited highlights via mobile phone app encoded media player. The media player being programmed to play final published highlight clips in a high definition format.

The macro-editor function comprises means to present for viewing multiple thumbnail low-resolution clips, of relatively short duration. Preferably, the duration is in the range from 5 to 25 seconds, further preferably from 7 to 20 seconds and most preferably from 8 to 15 seconds. The highlight clips are transmitted to the player's phone in thumbnail format, for example in 5MB or smaller size files.
On receiving the player’s editing instructions of the smartphone apps’ macro-editing software for their final highlight clip, the data management computer system resource automatically constructs the edited players highlight clip and reproduces final highlight clip in high definition (HD) format. Commercial micro-advertising is optionally added to highlight clip prior to the finished clips link being sent to the player for reviewing and sharing. The commercial micro-advertising is preferably between 6 to 30 seconds duration per advertisement, preferably 12-18 seconds.

The preferred timeline for the player’s game highlights is between 5 seconds and 10 minutes. Further preferably it is in the range from 1 to 6 minutes.

The invention will now be described, by way of a non-limiting example of its implementation, with reference to the known sport of golf. In Figure 1, a sporting complex (10), bounded by the broken line, is depicted. In this non-limiting example, the complex comprises a piece of land of 30 acres or less, on which a driving range (12) and six compact course second areas (1),(2),(3),(4),(5),(6) are constructed according to methods known in the art, so that each simulates a different hole at a known conventional golf course. Each compact golf course comprises of a number of fairway hitting stations (7), a chip zone (8), a bunker zone (9) and a green area (20).

The length of the range (20) is preferably at least 200m and preferably in the range from 270m to 350m. Ideally, the range would be about 350m long with a number of hitting bays located at both ends of range with users at either end hitting towards each other. In this embodiment a small 400mm barrier, extending the full width of the range, is erected at a distance of 20m from each end of the driving range hitting bays as a preventative measure to stop balls from opposing driving range ends reaching users hitting bay areas.

The width of the range is preferably in the range from 50m to 120m, and more preferably from 80m to 100m. Protective netting is preferably installed on boundary of the range to prevent wayward shots intruding on adjacent property. The netting will also assist in ball retrieval.
[0099] The green areas (20) provide a contoured surface as known in the art, the surface being comprised of a natural grass or synthetic turf material. Similarly, the surface of the playing zones (7) is of a synthetic turf-like carpet, or may be of natural grass. The choice is likely to be determined by considerations of maintenance.

[00100] It is within the scope of the invention for the greens in the complex not to all have exactly the same surface covering. This provides variations for players to experience and take into account in playing their fairway approach shots and putting. The surface of the green stands proud of the surface of the surrounding playing zone surface. In some embodiments, it may be that a portion of a green is lower than the surface of the surrounding playing zone.

[00101] The greens (20) on a compact golf course vary in size, slope and shape. The surface area of a green will range between 450m$^2$ and 800m$^2$.

[00102] At stand-Alone purpose-built complexes, the greens construction will follow specific copy writ architectural designs.

[00103] At hybrid retro-fitted golf complexes, certain tolerances are allowed for fairway hitting, chip and bunker play zones and green orientations, elevations, local flora and terrains being taken into account.

[00104] Optionally, around each of the green areas (20) is at least one bunker depression (9). The depression is charged with a quantity of bunker sand as known in the golf course construction art. Defined player hitting areas are positioned at different locations in the bunker zones. Hitting areas are assigned to each player to assist in digital camera ingest of players game. These positions (11) are illustrated in Figure 3.

[00105] The length of the second discrete playing area of each compact course, as measured from the back of the longest fairway hitting station from the associated green, to the associated green, is preferably less than 300m, and more preferably 200m or less in length. In a preferred embodiment, each compact course so measured is in the range 200m to 220m. However, it is envisaged that shorter and longer areas would be
accommodated within the scope of the invention, depending on factors such as local terrain, water ways and existing flora.

[00106] The distance between of each hitting station (7) and the centre of the associated green on a compact golf course will be consistent at every complex where local terrain, water ways and flora permit. However, a "novice" compact golf course design has distances that are shorter than normal compact golf course measurements. Novice courses are explained later.

[00107] Fairway hitting station and chip zone elevations relative to the elevation of the associated green elevation on a compact golf course can have a variation in height dependent on the local terrain levels. It is preferred that the fairway hit and chip zones are above the height of the green. The bunker play zones can be above, level or below associated green level.

[00108] The width of a compact golf course is between twenty-five metres and one hundred metres, with the preferred width in the range from 35m to 40m. However, it is envisaged that wider or narrower courses would be accommodated within the scope of the invention, depending on factors such as terrain, water ways and local flora.

[00109] Within the playing zones are demarcated fairway hitting stations (7), located at pre-set distances from the associated green area. In this example, each playing area has 4 fairway hitting stations, a chipping zone a bunker play zone and associated green per compact golf course. Each station is generally oriented towards its associated green to avoid possible player disorientation. This is demonstrated by way of the broken lined arrows in Figure 3(a) between zones (7), (8) and green (20).

[00110] The approximate distances of the fairway hitting stations (7) from a common centre orientation point on the associated green (20) are 170m, 140m, 110m, and 80m. The approximate chipping station (8) distances from the edge of associated green (20) vary between 10m to 30m, dependent on the compacted courses' level of difficulty. The stations define, for purposes of uniformity and reproducibility in playing conditions,
discrete areas from which all players must play their shots. The reasons are discussed with reference to exemplary playing rules in a later paragraph.

[00111] The "Novice Course" approximate distances of the fairway hitting stations (7) from a common centre orientation point on the associated green (20) are 140m, 110m, 80m, and 50m. The approximate chipping stations (8) distances from the edge of associated green (20) vary between 10m and 40m. The stations define, for purposes of uniformity and reproducibility in playing conditions, discrete areas from which all players must play their shots. The reasons are discussed with reference to exemplary playing rules in a later paragraph.

[00112] The driving range (12) is located in proximity to a control centre (28) and the compact courses (1 - 6). At a remote end of the driving range area (12) are located a series of driving range bays ('bays') (15). It is from the bays that participants "tee off" by hitting 6 to 10 colored golf balls in the direction of a landing area (30). The range exemplified in this embodiment comprises at least 18 bays, but preferably should include at least 24 and in a single level or multi-storey configuration. Certain embodiments may include a third or even a fourth level of bays, according to the player density to be accommodated.

[00113] The driving bays are either synthetic grass mats or natural grass areas (15). Each bay has either a golf ball tray for holding balls or equipped with a "cabbage" to dispense golf balls automatically onto a tee (16) in each unit (only one such tee is shown). The tee height is adjustable by the individual, as is the dispensing rate. In this example, the rate is able to be set to a maximum of a ball every 4 seconds (if desired).

[00114] In addition, the cabbage provides a housing that enables apparatus for determining the shot distance as well as the player's club head speed and ball flight path. In this embodiment, camera capture apparatus enables colored ball-flight tracing effects to be added to the digital recording of each shot. The apparatus records the distance and finishing position of each shot (40).

[00115] Other embodiments include,
a. balls used in the game being identified by means of a chip and a transponder

b. a game manager ('Group Steward') visually plotting results into a mobile phone or tablet app.

[00116] The apparatus uses cameras to transmit image data relating to the player's shot back to the control centre (28). Data receivers are provided to receive identification data from the ball and communicate this data to the server at the control centre. The centre server is installed with tracking software that records the movement and position of the ball according to the information received from the receivers and the cameras.

[00117] The "down range" landing area (30) of the driving range is either natural grass or synthetic grass.

[00118] A defined centre corridor (32) approximately 36m wide is located down the full length of the range.

[00119] This defined corridor (32) facilitates a chip shot qualifying element to the game. This element of the game determines how many chip shots players will have later in their game on their assigned second stage area of the compact golf course. Players will accumulate one ball, to be played at the chip zone (8) for every driving range shot that finished inside the defined centre corridor on the range.

[00120] If the driving range shot comes to rest outside the defined centre corridor (32), the player concerned will accumulate one ball, to be played at the designated bunker zone (11) on their assigned compact golf course.

[00121] Positioned at selected locations on the range area is a plurality of targets (31). In this embodiment, the targets are impact-sensitive, installed structures, fitted with LED light strings and audible sounds that are activated when the target registers an impact from a ball. When a player's ball hits a target, the tracker software and cameras determine which ball has struck and the player associated with it.
[00122] Targets (31) are positioned inside and outside the defined centre corridor (32) on the range. More targets are positioned on range landing area closer to the driving range hitting bay end (15) with the number of targets reducing; the further down range they are situated.

[00123] In the preferred driving range embodiment, where a 350m length double ended driving range with hitting bays located at each end is utilised:

a. game players use only one end of the range to play the game.

b. the other end of the range continues to function as a normal driving range.

c. the configuration of the game targets (31) will be relative to the end of the range that game players utilise.

[00124] Players and Group Stewards are notified via mobile phone app scoring device when a player's ball has come in contact with driving range target (31). The player concerned will be rewarded with a bonus ball to be used at either the chip zone (8) or bunker zone (9) of their assigned compact golf course. The Group Steward's mobile phone scoring app device will keep record of player bonus balls for later in the game.

[00125] Bonus balls are issued to the players at the appropriate chip or bunker zones.

[00126] If a player's ball comes in contact with a target located in the defined centre corridor (32), then that player concerned is rewarded with a bonus ball to be used in the chip zone (8) of their assigned compact course.

[00127] If a player's ball comes in contact with a target located outside the defined centre corridor (32), then that player concerned is rewarded with a bonus ball to be used in the bunker zone (11) of their assigned compact course.

[00128] The positioning, orientation and size of the targets are desirably duplicated at each complex.
Additional bonus chip or bunker zone balls can be achieved at the driving range. At subscription to the smartphone application (app) used for scoring the game, players register an average drive distance into a "personal distance challenge" (PDC) section of the app (explained below).

Players can earn one additional bonus ball for every driving range shot that exceeds their PDC.

If the exceeding-PDC ball finishes inside the define centre corridor (32), then that player concerned is rewarded with a bonus ball to be used in the chip zone (8) of their assigned compact course.

If the exceeding-PDC ball finishes outside the define centre corridor (32), then that player concerned is rewarded with a bonus ball to be used in the bunker zone (11) of their assigned compact course.

An algorithm in the smartphone app calculates an average length of shot for each player and adjusts PDC up or down dependent on each driving range experience results.

Positioned at fairway hit stations (7), chip stations (8) and bunker play stations (9) located at the various compact golf courses (1-6) are further sets of video-capturing cameras (Fig. 3b - 41). Referring also to Figure 3a, these are connected by optic fibre cable (31) and networked to the control server in the control centre (Fig. 1 - 28). Configurations for the camera communications are described below with reference to Figures 5, 6, & 7.

The server is loaded with software that is operated to capture vision of players on the driving range and compact courses, an in particular, vision of each shot each player plays and shot finishing positions. Microphones are also optionally provided to capture audio from the course. High definition film clips are generated for each piece of action in the game, as well as of surrounding activities and conditions.
The golf course locality is fully enabled for digital wireless communications between authorised devices on the course, participating in a game, and a base station or stations. Suitable digital wireless communications technologies include Wi-Fi, Bluetooth and cellular telephone networks. Preferably, the course technology is Wi-Fi over a secure, private network, which requires players and group stewards to log on to the network using a password, as is known in the art.

The authorised devices are mobile devices, one of which is associated with a group steward and a set of other devices with players, for example players in a four person league formats. In the case of the group steward, the device is a tablet computer and in the case of the players the devices are smartphones.

The above arrangement facilitates data transmission from the course, via the participant mobile devices, the group steward’s tablet and the cameras and microphones.

The players' smartphones are equipped with smartphone application software for ease of interaction with each other and the control centre and Group Steward's tablets, to enable scoring of the game. These features are further described below.

The invention extends to a plurality of complexes of the kind described above, each of the complexes having in common a preferred uniformly constructed compact course within the previously described tolerances. This common arrangement allows players at different complexes to compete against each other over a standardised compact course in real time, or at different times according to time zones.

Complexes located in global regions where climate conditions prohibit continuous outdoors play for twelve months of the year, in this embodiment, have the option to include

a. the creation of an indoor computer-generated virtual facility which allows an indoor golf simulation of the game to be played, wherein the golf simulation includes an
actual indoor hitting station playing to a virtual driving range and various virtual compact golf courses projected onto a screen;

b. Digital capture of game experience with camera configurations at the golf simulator hit zone is similar to Fig. 3b (41)

c. Standardised virtual environments created, for example, with respect to light, temperature, humidity and wind conditions. The latter may be simulated for a desired weather scenario using blowers and heaters or coolers and humidifiers.

The visual image capture and processing arrangements

[00142] The visual image capture arrangements described with reference to Figure 5. In this configuration, there is a control centre set up at the sports complex premises. The video capture system (100) comprises a set of SDI HD cameras (102) and a set of pivotally moveable fixed cameras (104). The cameras are selected to be remotely actuated and are positioned as mentioned elsewhere herein, at strategic positions selected for capturing aspects of the golf games played at the complex. They are connected to a fibre optic network (106) by a suitable fibre media converter system (108), (108') by means known in the art. By way of example, the present system utilises paired SDI and CAT 5 fibre optic converters.

[00143] Data signals from the various cameras are conveyed along a main fibre optic cable bus of network (106), via SDI matrix router (110), to the server in the control centre (28) (refer to the illustration in Figure 1).

[00144] The control centre (112) comprises three main modules: A system technology module (114), a file management system and control unit (116) and a data storage and edit compiling system (118).

[00145] The system technology module provides tools for the ingesting of multiple camera feeds, recording and archiving, camera switching, file naming, high definition (HD) codec's, adding of metadata relating to player identities and managing centralised storage.
[00146] The file management system and control unit provides for transcoding ingested files to proxy video resolutions, for review, editing and approval by the player, automatically transcoding content for web delivery, moving transcoded media files to suitable storage locations for further processing, establishing auto-deletion rules for aged files and content, and providing a suitable portal or interface (e.g. API) to pass on additional metadata to a web or app service provider, should this be required.

[00147] The data storage and edit compiling module provides for the retention of player and team profiles, player hitting bay allocations at each station, scoring functionality, trophy room and personal achievement data, camera control switching capabilities, storage of edited game highlights, with data identifying the date, time and hitting station and player's allocated bay. It also automatically follows edit instructions received from user's smartphone macro-editor application to compile an encoded HD format of users final highlight clips. The module also optionally adds commercial micro-advertising to users' final highlight clips then sends a link to the related file to the user's smartphone application and provided email address.

[00148] The system provides wireless data transfer infrastructure (for example Wi-Fi) (120) for communications between the control computer system (112) and the mobile devices of the players (122) and the group stewards' tablet (124). The tablet is programmed with a steward's app which enables the operator of the device to switch certain camera feeds, allocate bays to players and enter game scoring decision data as well as time keeping and other game related tasks as may be required.

[00149] The diagram in Figure 6 illustrates an alternative embodiment to the one shown in Figure 5, namely a stand-alone or hybrid complex (hybrid being traditional golf and accelerated golf played at same complex that has the driving range and compact courses retro-fitted) having an optic fibre (132), (134) connecting the cameras in the respective sets (102) and (104) (refer to figure 5) to a camera controller module (136), (138) for the set. Each camera; or collection of cameras connected by optic fibre; are operatively connected to an HD wireless transmitter (140), (142) which transmits the image data captured by the camera to a designated paired receiver (144), (146) located
at the systems control centre (28) and proximate to the computer control system (112), previously described in relation to Figure 5.

[00150] In an alternative embodiment shown in Figure 7, an outside broadcast unit (148) replaces the complex's systems control centre (28) of Figure 6. This arrangement enables complexes to be constructed without systems control centres, such as installations in a club house, and instead rely on the presence on demand of an outside broadcast unit having the necessary capabilities of a systems control centre.

[00151] The players' smartphone application includes an encoded media player for viewing edited highlight clips in HD mp4 format.

[00152] The application includes a virtual personal achievements room including game stats, scores, trophies and personal game highlights. Players can register teams in scheduled events played across selected "driving range - compact course" combinations, in local, national and international leagues.

[00153] The players' smartphone application further includes a macro-editor for selecting and processing personal game highlights for publishing as a high definition video presentation or movie.

[00154] The macro-editor function comprises means to present for viewing multiple low resolution thumbnail video clips, of relatively short duration. Preferably, the duration is in the range from 5 to 25 seconds, further preferably from 7 to 20 seconds and most preferably from 8 to 15 seconds.

[00155] The players can edit "in and outs" of each short highlight thumbnail and drop edited thumbnails into a final highlight clip timeline. The duration of the timeline can vary to any length. In this embodiment, the timeline duration is between 10 - 180 seconds.

[00156] "Open source" smartphone widgets can plug-in to smartphone application editing software to enable special effects to be added to players editing experience in creating a final game highlight.
[00157] Royalty free and royalty-paying music and sound effects can be added to final highlight timeline.

[00158] Once player has completed edit and added all desired data to game highlight timeline, the edit instructions of the players thumbnails, including any widgets and audio, are sent via the internet to a data storage technology facility (118).

[00159] The software at the data storage technology (118) follows the edit instructions and creates a duplicate of the player's highlights timeline in HD mp4 format.

[00160] Commercial micro-advertising up to 2 minutes in length, may be embedded into a player's highlight clip. In this embodiment, the micro-advertising video clip duration is between 6 - 15 seconds.

[00161] The data storage technology link of the players highlight produced in HD mp4 format is sent to player via smartphone application and email. Players can share the link to friends and family and work associates etc.

[00162] The smartphone application has an encoded media player to enable viewing of players game highlights.

Example of game play using the apparatus of the invention

[00163] An explanation ensues as to the method of playing a game of golf by means of the invention.

[00164] First, players are required to download a smartphone application software ('app') to use at a complex when participating in a game. The software, when installed and activated, provides an interface for the user to become a subscriber to the game system managed by means of the software.

[00165] Prior to their game participation beginning, during subscription, each player fills out his or her registration details including email address to receive highlight clips and an average driver length for PDC consideration.
Preferably registration also entails taking a photograph of their face (a "selfie"), from which the app generates an avatar in their general likeness, as is known in the art of avatar creation.

The preferred game has participants playing in a league format of 4 to 6 players per team, with 4 players participating per game.

Players score as individuals and as a collective team.

Teams play other teams in each round, during a league season. Depending on the number of teams in each league, some rounds have one team versus one team. Some embodiments of the league format have multiple teams competing against each other each round. The winning team each round is decided by the highest accumulated team score. A league season can vary in duration from 8 to 20 weeks with end-of-season playoffs involving the top 8 teams for each complex. The winners of each complex's playoffs can compete against other complex playoff winners in regional playoffs. Winners of the regional playoffs can compete against regional playoff winners in a global playoff league.

Other embodiments of league formats provide for an elite level compact course to be duplicated across many complexes allowing players at various locations around the world competing in a global league format each round, with 8 week season and end-of-season playoffs.

In a preferred embodiment of execution of the invention, the application software issues the players instructions on when and how play is to commence, with tee-times being for example on the hour, for every hour from say 6:00 a.m. to 9:00 p.m.

The software further provides interface means for enabling system subscribers to reserve their tee-off time. Alternatively, an online booking sheet is programmed to appear on the game administrator's website. This complex enables those who are not yet subscribers to make reservations before becoming subscribers.
[00173] Preferential bookings may be offered to members of the game franchise, or of a club established at or associated with a particular complex. For example, an online booking sheet may be made available to members only for up to 4 days prior to a proposed day of play. By way of smartphone application, a play-booking sheet would be made available to the public for general booking only on the day of play, or may even not be available online, so that bookings are available only through contacting the complex administrator on the day of play.

[00174] An example of play is now described for a group comprising 4 league players, with reference being made to the game flow-chart in Figure 2:

[00175] The team of 4 players arrives 15 minutes prior to their 5:00 p.m. tee time (see 50). Each player is already a subscriber and has a smartphone loaded with the application software for monitoring and managing their individual and collective game. Each team is allocated a group steward for their game and is connected wirelessly via their smartphones with the steward’s tablet computer. The steward’s tablet computer in this example is operated by a human, and comprises a tablet computer device that is linked not only to be in wireless communication with the players’ smartphones, but also to a system server. The group steward is tasked with assisting the players to score the game correctly for the group. The system server is remotely located, in this example in the complex’s systems control centre (28) in Figure 1. It may alternatively be located at a site remote from the complex.

[00176] The group steward’s tablet has access to details of the team and the individual subscriber associated with each of the smartphones, for example whether participants are new or returning players, each player’s statistics of previous games played, virtual trophies achieved and the like. These details are displayable to the group stewards’ tablet via a menu interface.

[00177] The game is played with conventional golf clubs, with players permitted to use their own, or hire equipment. Players’ golf clubs are loaded onto a golf cart, but each player first selects and takes a long club, such as a driver or a 3-wood, to the range for the initial practice and tee-off phase.
[00178] If a player is new to the game format, or to the way of using their app on their smartphone, they are assisted in entering a personal distance challenge (PDC) for the shots they will hit from the driving range. In the case of a returning player, the app algorithm calculates their new PDC, this being an average of tee shot distances recorded in their past games. The calculation may be suitably loaded towards the player’s more recent performances so that the PDC represents are realistic challenge.

[00179] The driving range operates as a normal driving range would be expected to, but in this case regulated for playing time sessions from 5 minutes past the hour up to 5 minutes to the hour. For example, in a session that has been predetermined to endure from 4.05 p.m. to 4.55 p.m., there are two back-to-back 25-minute driving range occupation times available, namely from 4.05-4.30 p.m. and from 4.30-4.55 p.m.

[00180] Players are announced, either by a human announcer or by a pre-programmed synthesised voice, to the tee-off area at 4.55 p.m., where they can hit white range-practice balls prior to their 5:00 p.m. game commencement time.

[00181] At a game commencement time, to avoid interfering with players, those people not participating in the game but using the range, for example for practice, will stop hitting balls to allow players with reservations to proceed. The non-participants are permitted to resume hitting after the game players have concluded the part of the game that is required to take place on the range.

[00182] The players place their smartphone (or equivalent device), with the scoring app running, on a holder provided on the driving range cabbage. Each player is assigned a different colour golf ball for ease of identification. The cabbage and group stewards’ record the distance balls have travelled and finishing positions by monitoring either an identification transponder chip in the colored balls or the player’s swing speed and ball flights or visual sighting by the group steward.

[00183] The group steward’s tablet device receives and records each player’s results and highlights any personal achievements, bonus balls and any highlight worthy shots. These records are shared to player’s smartphone via scoring app function.
The Group's Steward distributes golf ball cartridges to each of the players containing the appropriate number required to play an entire game - driving range and assigned compact golf course (refer to 52 in Figure 2). Typically, the number is 30-40 balls. Each set of golf balls are distinguishable from the other by means of colour, separate colours being allocated to each of the respective players in the team.

The players then hit 6 to 10 of their respective sets of colored golf balls from the driving bay down the range in their own time, but at the same time as the others, saving time.

Players driving range results determine how many chip shots and bunker shots they will perform later in their game at their assigned compact golf course.

Players are allocated one ball, to be played at the chip zone (8) on their assigned compact golf course, for every driving range shot that finished inside the defined centre corridor (32) on the range.

For driving range shots that come to rest outside the defined centre corridor (32), Players are allocated one ball, to be played at the designated bunker zone (11) on their assigned compact golf course.

Players & Group Stewards are notified via mobile phone app scoring device when the player's ball has come in contact with a driving range target (31). Players are rewarded with a bonus colored ball to be used at either the chip zone or bunker zone of their assigned compact golf course. The Group Steward's mobile phone scoring app device will keep record of player bonus balls for later in the game.

Player's whose ball comes in contact with a target located in the defined centre corridor (32), are rewarded with a bonus ball to be used in the chip zone (8) of their assigned compact course.

Player's whose ball comes in contact with a target located outside the defined centre corridor (32), are rewarded with a bonus ball to be used in the bunker zone (11) of their assigned compact course.
Players earn one additional bonus ball for every driving range shot that exceeds their PDC.

If the ball exceeds their PDC and finishes inside the define centre corridor (32), then that player concerned is rewarded with a bonus ball to be used in the chip zone (8) of their assigned compact course.

If the ball exceeds their PDC and finishes outside the define centre corridor (32), then that player concerned is rewarded with a bonus ball to be used in the bunker zone (11) of their assigned compact course.

An algorithm in the smartphone app calculates an average length of shot for each player and adjusts PDC up or down dependent on each driving range experience results.

The result of each shot is recorded into the players and Stewards smartphone app which has a virtual representation of the driving range with corridor and targets displayed on screen, as well as the positions at which the player's balls have come to rest. A player and/or group steward can simply tap the screen at the finishing position of a ball for a display to show the number of qualifying chips or bunker shots associated with that ball for later in the second phase of the game.

At 5:05 p.m. in the example of the invention being described, the players, having by now played their 6 to 10 driving range shots, collect any bonus balls achieved at the range, and exit the range area (12) and travel with their clubs in a golf cart to their allocated fairway hitting station bay for completing their compact golf course (refer to 54).

Virtual trophies are meanwhile awarded to the players' personal trophy room for achieving certain pre-set milestones during the first phase of the game - that is the part now completed at the driving range.

Once at the assigned compact golf course (see step 56), for example the fairway hitting station situated 170m from the centre of associated green, each player is
assigned a hitting bay for that fairway zone. There are 4 bays per fairway hitting station. In other examples, the number of bays may be altered.

[00200] The players and group steward can place their smartphone on a docking stand (not shown) at their bay. In a preferred embodiment, the stand includes a phone battery charging complex. The complex includes adapters for enabling charging of a wide variety of smartphones. The players' apps will display on the phone screen which bay has been assigned to them for that fairway hitting station distance. This information is replicated on the group steward's tablet. The relative bay position need not be the same at each hitting station.

[00201] For data collection accuracy, cameras assign the players' app identities to hitting bays throughout the game, to facilitate marking of video footage and associating it with the correct player, for use later in managing the ingested image data and creating comprehensive management of all game participants files for later use in the creation of game highlights.

[00202] A time window signal produced from the group stewards tablet device is shared with the team players to begin play from each hitting station. All players hit their 6 colored golf balls to the associated green in their own time, but at the same time window.

[00203] All players advance to the next closest fairway hitting station to the associated green. Virtual trophies are presented to the players' personal trophy room for milestones achieved during this fairway shot phase of the game.

[00204] The group steward records the players' shots results on their tablet device. Players also have the choice of recording results on their smartphone app. Players receive 2 points to their score for every ball hit from any fairway hit zone, chip zone or bunker play zone that finishes on the associated green.
[00205] Balls hit from any of the fairway hit zones, chip or bunker play zones that miss the associated green score zero and are collected by the group as they advance towards the associated green.

[00206] The players then move closer to the green, playing their next shots at the closer fairway hitting station (7) located at for example 140m out from the green (as seen at 58). After recording results, the group moves onto the fairway hitting station at 110m (see 60). Here they hit a further set of 6 shots, before progressing to the hitting station at 80m (62).

[00207] Next the group steward's tablet device shares the driving range results to the players' smartphone app, detailing how many chip shots and bunker play shots for each player qualified for including any bonus balls achieved.

[00208] Play advances to the chipping zone (8) and bunker play zones (9), as per step 66 in Figure 2. At this juncture, the steward's tablet and the players' apps will display the number of chip shots and bunker play shots available to each player, based on their results at driving range area (12) including any bonus balls.

[00209] Next the group plays chip shots on to the associated green from the designated chip zone bays (8) (64).

[00210] Then the group plays their bunker shots (9) (66), before collecting all balls not on green then moving onto the putting green (20) itself.

[00211] The preferred green apparatus has nine recessed cups to receive players' golf balls.

[00212] Three cups are in easy putting positions, three cups are in medium difficulty positions and three cups are in difficult positions.

[00213] The easy cups are yellow and have a yellow flag attached to the pin that fits inside the cup. The yellow cups have a point value equal to 1 point.
[00214] The medium difficulty cups are red and have a red flag attached to the pin that fits inside cup. The red cups have a point value equal to 3 points.

[00215] The difficult positioned cups are blue and have a blue flag attached to the pin that fits inside cup. The blue cups have a point value equal to 5 points.

[00216] A Hole-In-One scoring bonus applies to a player that holes a shot from any of the fairway hitting stations at 170m, 140m, 110m, or 80m. A bonus score multiplier applies and they receive 5 times the point value of the cup into which the ball was received. For example, with reference to the touch-screen display (72) of a mobile phone (70), as illustrated in Figure 4, the Group Steward and the player who has a hole-in-one from 140m into a red cup would tap the screen of their smartphone app in a section (74) located above the depiction of the virtual green (76) labelled 'Hole-in-one multiplier'. This input causes the program to generate three differently coloured multiplier buttons (78) applicable to the hitting station distance. In the example, all three cup categories (blue, red and yellow) provide a 5x bonus. The group steward and player tap the image of the green (76) and then tap the appropriate colour multiplier associated with the cup of his successful shot. The shot is shown then to have scored 5 times the normal value of 3, for a total of 15 points.

[00217] A 'Chip-In' scoring bonus applies to a player that holes a shot from any of the chipping or bunker play zones. A bonus score multiplier applies and they receive 3 times the point value of the cup into which the ball was received. For example, with reference to the touch-screen display (72) of a mobile phone (70), as illustrated in Figure 4, the Group Steward and the player who has hole their shot into a yellow cup from either the chipping or bunker play zones would tap the screen of their smartphone app in a section (74) located above the depiction of the virtual green (76) labelled 'Chip-In multiplier'. This input causes the program to generate three differently coloured multiplier buttons (82) applicable to the station distance. In the example, all three cup categories (blue, red and yellow) provide a 3x bonus. The group steward and player tap the image of the green (76) and then tap the appropriate colour multiplier associated with the cup of his
successful shot. The shot is shown then to have scored 3 times the normal value of 1, for a total of 3 points.

[00218] Once at the green, players and group steward place their phone / tablet devices on a stand (89) provided alongside the green. In a preferred embodiment, the stand includes a phone battery charging complex of the kind described above.

[00219] The group steward scores the balance of the game via the tablet computer (see step 68).

[00220] Players are permitted one putt only for holing each ball they have managed to land and keep on the green.

[00221] Players are to follow golfing etiquette to some reasonable degree, but players are generally permitted to putt together in their own time. According to etiquette, the balls closest to the cups are putted first. A player may elect to aim for any desired cup, irrespective of its distance and degree of difficulty rating (as represented by the colours discussed above). If a putt misses, the relevant ball scores zero and is tossed to the group steward at a scoring area near the green.

[00222] Greenside LED scoreboards displaying opponents’ scores with league and competition leader scores are located near associated greens for assessment when putting.

[00223] Players and Group Stewards have also leading scores on their smartphone app devices.

[00224] As players and group approach the final few putts each they can request a tally their individual score and team score. Teamwork and strategy is involved as to which cups to attempt in the closing few putts each. Players may opt not to try for a closer simpler “less point value” hole in favour of a “higher point value” longer more difficult putt in an attempt to achieve a victory over an opposing team in a league event or improve their position on the individual player scoreboard.
After the last putt, the points are tallied by the group steward and are individually posted and added together for a team score (in team league competition to determine that rounds team winner). The player and team with highest score is the winner.

In the event of tied scores, the player or team that achieved the most points for the zone approach shots prior to the putting element scores added to their points tally are declared the winners.

In the event of the above still producing a tie, then the player or team with the most 5pt blue putt scores is declared the winner.

In the event of the above still producing a tie, then the player or team with the most chip zone shots during their game is declared the winner.

Notifications of any virtual trophies awarded to players and teams for milestones achieved during their game are sent via smartphone app. Players can view their personal trophy room within the smartphone app to view personal achievements.

Cameras (41), strategically located around the green and bunkers capture the experience of the game and transmit digital files back to the systems control centre (28). Green cameras data is time-adjusted to correlate with a specific player's ball landing within a set period after an approach shot has been played by that player.

The invention extends further to a smartphone app barcode reader or card chip device that tracks retail spending habits of the golfers and visitors to a golf complex of the invention according to methods and apparatus known in the art.

**Creation post-game of a video record**

The smartphone app allows players to create a record of their game, includes a program for processing the image data for creating a digital movie that can be retained or shared, according to the player's preference. This is achieved in the following way:
[00233] During a game, the system server receives multiple image files from the cameras positioned around complex, including the driving range, the remainder of the assigned compact golf course including the fairway hitting stations, the chip and bunker play zones and the associated green area. Each such file is tagged with location, date and time markers and linked back to player database of hitting bay allocation folders. Details of the player making the shot, the group to which he belongs, and the time at which the action occurred allows for systems control centre to manage video data files. This makes files relating to a particular player or game easily retrievable for compiling into and album or a digital video highlights package, or even a full record for coaching purposes. But for compression issues that render the resultant file too large for sending via conventional broadband internet services, the complete file could have been dispatched to the user.

[00234] According to the program, however, a reduced size 'low-res thumbnail' version of each sequence is created and the thumbnail files, being by definition of relatively low resolution but small file size and therefore suitable for viewing on a smartphone, are communicated to the smartphone of the player and presented by means of a menu, together with a storyboard timeline form, and instructions to the player for viewing the various digital image files and compiling them into a sequence of his choice. This communication desirably takes place within moments of the players completing their game, as is denoted by the numeral 73 in Figure 5.

[00235] Macro-editor software (of a kind known in the art) enables the user to select the file/s they wish to be placed on the timeline storyboard and the sequence in which they are to be played. The software allows users to edit thumbnails "In and Out" meaning they can cut sections out of individual thumbnail clips and drop them into timeline.

[00236] In addition to receiving a menu of thumbnail video files, the subscriber is provided with video editing software a menu having functions such as a choice of transition clips to place between selected video clips, slides and sound and clip editing (truncating, splitting) etc. as are known in the video editing software art. The player is
therefore empowered to select clips, edit out parts, and state the order in which they are to be performed.

[00237] Open source widget developers can create special "visual and audio" effects with widget plug-ins for our smartphone macro-editing software app allowing user to add special effects to their final highlight clip. These widgets can be a free or in-app-purchase for users to download from smartphone app stores.

[00238] A menu in the smartphone macro-editing software app allows a selection of royalty free music and audio effects to be added to final highlight clips. A menu with links to royal music is available also to allow users to purchase royalty music and audio effect to be added to their final highlight clip.

[00239] The relevant metadata identifying the files selected, any special effects, audio files and the sequence in which they are to be arranged for playing is then transmitted to the server. A server program is activated then to gather copies of the relevant files thus identified and to place them in a storyboard in the player's selected file edited order. The server then follows instructions in its software and produces a high definition digital format.

[00240] Commercial micro-advertising is embedded into final highlight clip. The length of the micro-advertising is between 6 seconds and 30 seconds in duration.

[00241] The final edited highlight including micro-advertising are compiled and edited according to player user app instructions then made available to the player via a web-link and the player may then decide how to use the final highlight, such as by downloading it to a personal computer or streaming it to a smart TV, or sharing a link to the video via social media.

[00242] Final highlight clips are viewable via our encoded media player in the smartphone app device and on our social media site (similar to a YouTube site). Players and other people wishing view the final highlight clips can download free encoded media player for any digital "smart" device.
This method of producing a digital recording of the game event not only enables the player to be the creator or selector of the content, it bypasses the compression challenge faced in the prior art, namely of dealing with large volume files that are not suitable for fast uploading and downloading, especially in areas where internet speeds are not optimal. The files made available via thumbnail techniques are small enough to be managed even in relatively slow internet broadband environments. They do not lead to congestion at the server end or over the communications network. The link provides ease of access to the high definition finished product instead of its needing to be physically sent, such as by email attachment.

This method of producing a digital recording of user generated experience content with commercial advertising not only enables the player to be the creator or selector of the content, but share in the distribution and profit of the highlight clip. The more viewer analytics users generate the higher the commission clip received.

This method of producing a digital recording blend of user generated game and editorial content with commercial advertising allows business to associate with a creative social media advertising medium where people can share links to their digital video clips of their own experience with other family and friends in their social media networks. The power of quality HD digital with commercial advertising can expose an advertising campaign to millions of people within days.

By way of a non-limiting example, a player may compile a package of edited highlights of his game on the day. It may comprise the following and have a duration of about 2 to 3 minutes:

**Approx. 2-3 Minute Highlight Package Contents**

- Player Profile
- Name / Affiliated Turbo-Club
- Leagues: Status
- Players Statistics
- PBs
- Current Virtual Trophies
Edited Highlights from:
• Driving Range
• 170m
• 140m
• 110m
• 80m
• Chip Zone
• Bunker Play
• Putting

Trophies achieved

[00247] The editing software in the application on his mobile may also permit adding sound-bytes, either from stock or from the game, including canned and spontaneous commentary and allow selection of the player's best shots. It may also permit inclusion of facial expressions and gestures prior to or subsequent to shots.

[00248] In a further embodiment, the phone application software provides a selection of widgets such as for adding to the storyboard and thereby replicating or referring to a scene from a known movie. This is readily achievable within the constraints of limited bandwidth transmissions, as the data being sent from the phone is not in video data format, but comprises metadata. The metadata received by the computer running the video editing software instructs the program to create a full HD video highlights package using parameters contained in the metadata.

[00249] The finished compilation may be completed while the player is still in the clubhouse participating in post-game debriefings or refreshments and may be published by way of posting a link to the final highlight file (which remains securely stored on the control computer server) to a social medium such as the player's Facebook, Twitter, LinkedIn or similar page. Alternatively the link may be posted to individuals in private electronic communications.
The method of creating an easily compiled and easily shared video highlights package may be applied to sports and lifestyle situations other than golf. All that is required is a set of networked cameras and a data link to a server for storing and processing the digital clips according to the instructions received from the subscriber to the system. In sports, it may be applied to local club sports such as cricket, various football codes, swimming, tennis, basketball, netball and the like. It may be applied to social events such as graduation ceremonies, theatre productions, and religious ceremonies such as baptisms and weddings. Essentially, wherever an event is suitable for capture by static cameras would be a potential complex for exercising the video editing aspect of this invention.

Desirably, in the case of an accelerated golf game of the kind of format described above, a 2-3 minute highlight package is considered by the inventors to be adequate, since the game itself is of about 55 minutes duration.

These embodiments merely illustrate particular examples of the method, kit and apparatus of the invention. With the insight gained from this disclosure, the person skilled in the art is well placed to discern further embodiments by means of which to put the claimed invention into practice.
Claims

1. A sports complex comprising a compact golf course that includes a first discrete area and a second discrete area, the areas being adapted so that, in combination, they functionally simulate a golf course.

2. The complex of claim 1 wherein the discrete areas include markings that define discrete stations from which a participating player is required to hit a ball according to the manner of playing a golf shot.

3. The complex of claim 2 wherein the stations comprise a plurality of assignable hitting bays.

4. The complex of any one of claims 1 to 3 including cameras located at fixed positions around the first and second discrete areas.

5. The complex of claim 4 comprising a computer system and communication means between the cameras and the computer system.

6. The complex of claim 5 comprising computer-managed storage means for storing video clips of events that have been captured by the cameras.

7. The complex of claim 6 comprising first application software running on a first computer of the computer system and second application software loaded to a mobile device associated with a person, the first and second applications software being configured for data exchange between them.

8. The complex of claim 7 wherein the first application software causes the computer to relate each clip with a particular game played at the complex and with an individual player assigned to a hitting bay.

9. The complex of claim 8 wherein the first software is formulated to instruct a computer of the system to generate from said clips corresponding lower resolution versions of said clips relating to a nominated individual player and communicate at least two of the lower resolution versions to the device of said player.
10. The complex of claim 9 wherein the second software is formulated to instruct a processor of the mobile device to generate a storyboard template on the mobile device and to prompt a user of the device to place two or more of said lower resolution versions in a desired order on said storyboard.

11. The complex of claim 10 wherein the first software is formulated to instruct a system computer to receive data pertaining to the filled-in storyboard and from it to generate a high definition digital package containing the clips in the order set out by the user on the storyboard.

12. The complex of claim 11 wherein the first software is formulated to instruct a system computer to communicate to the mobile device a hyperlink to an encoded digital video package for viewing over the internet.

13. The complex of claim 12 wherein the second software includes media player means enabled for reading encoded files in said encoded package.

14. A method of producing a digital video package comprising at least two clips in high definition, comprising the steps of

   a. locating a camera device at a fixed location selected to capture desired images of action at a first location,

   b. causing the camera to operate to capture action images,

   c. causing a computer to store the images in at least two high definition video clip files,

   d. causing a computer to operate according to instructions and create versions of the files in a lower resolution size format suitable for transmitting to and viewing on a mobile viewing device;

   e. causing a computer to communicate the lower resolution files to a selected mobile communications device;
f. cause second software on the device to prompt a user of the device to select from the communicated versions a set thereof for desired inclusion in a video package;

g. cause said second software on the mobile device to output file-editing instructions identifying clips corresponding to the versions in the set to a computer loaded with video editing software suitable for processing the high definition clips, and

h. causing the video-editing software to instruct said editing computer to

   h.i. process the editing instructions,

   h.ii. generate a high definition video package containing the identified high definition clips.

15. The method of claim 14, further including making the video package available to the user via a web server.

16. The method of claim 15 including generating a website hyperlink to the package and communicating said hyperlink to the user.

17. The method of claim any one of claims 14 to 15 including causing the mobile device to display a storyboard in template form, and allowing the user to position the clips selected on the storyboard template in a sequence desired by the user and causing the computer to generate the package with the clips in the user’s desired sequence.

18. The method of claim 17 including providing the user device with video editing software and allowing the user to use the software to edit the reduced size files, and causing the mobile device to communicate to the computer, information about edits made, for implementing edits on the high definition file clips in generating the package.
19. The method of claim 18 including communicating to the user device a hyperlink to a menu from which a user may operate an input button to select a clip for previewing on the mobile device in reduced size format.

20. A method of notifying relative positions of a ball used in an accelerated golf game, the method comprising:

   a. Providing a computer running a first software program and a mobile device running a second application program,
   
   b. Providing a golfing hole having assignable shot-hitting bays and a green,
   
   c. Causing assignment of a human player to a hitting bay;
   
   d. by the computer, transmitting notification of said assignment to a mobile device associated with the player and running the second application program;
   
   e. allowing the player to hit a plurality of balls from the assigned hitting bay towards the green,
   
   f. causing the computer to transmit information to the player's mobile device to cause the player's mobile device to display a virtual green; and,
   
   g. by the computer, determining whether actual positions of the player's hit balls correspond to positions located on the virtual green, and transmitting information to the player's mobile device to display the location of the hit balls relative to the virtual green.

21. The method of claim 20 wherein each ball includes an internal transponder.

22. The method of claim 21 including providing means for monitoring signals from the transponder, using signals received for determining the transponder's actual position and hence determining the position of the associated ball.
23. The method of claim 22 further comprises using camera-captured images for determining a ball's actual position.

24. The method according to any one of claims 20 to 23 including generating a reward notification for display on the mobile device of a player whose shot has earned points according to rules of the game.

25. A network of sports complexes each having a golf hole defined by a first driving area and a second approach shot-playing area, said areas being identical in each complex in the network.

26. The network of claim 25 wherein the complexes have additional second areas that are not identical to each other.

27. The network of claim 25 or claim 26 including video recording means for recording action by participants in games played at any complex in the network.

28. The network of claim 27 including editing means for enabling a player to view a video highlights package of a game within minutes of game completion.
FIGURE 2

Golfer arrives at Turbo-Golf
- Booking received prior to Game via App
- Walk in Traffic minimal
- Registration
  - Open App & scan
  - Course ID
  - Bay ID
  - Ball Colour ID
- Proceeds to Driving Range Bay
- Enter Personal Distance Challenge
- Place Smart Phone into Holder at Bay
- Turbo-Launch Tee - Time Count Down

Follows map to next
06:19 - 06:19

Follows map to next
06:09 - 06:13

His 8 shots 140m Touch Plot Results
06:15 - 06:19

Follows map to next
06:19 - 06:21

His 8 shots 110m Touch Plot Results
06:21 - 06:25

Follows map to next
06:25 - 06:27

Follows map to next
06:28 - 06:30

His 8-10 Drives
Touch Plot Results
Collect Ball Cartridge Bonus Balls
06:00 - 06:04

Collect Clubs

Exit via Proshop
Retail Opportunity
Lesson Opportunity
Book Next Game

Food & Beverage offered
while Viewing Highlights

Highlight ID sent to phone

Proceed to Club House to review Highlight Package

Follows map - Secured Club Holding Area
Return Ball Cartridge
07:00 - 07:05

FIGURE 4

Hole-in-one Multiplier
5x 5x 5x

Chip-in Multiplier
3x 3x 3x
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

A63B 67/02 (2006.01)  A63B 69/36 (2006.01)  H04N 21/854 (2011.01)  G06T 7/00 (2006.01)

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, EPODOC keywords include: GOLF, COURSE, COMPACT, CAMERA, BAYS (and similar terms)

TXTE keywords include: GOLF, COURSE, COMPACT, CAMERA, BAYS, VIDEO, HIGH, LOW, RESOLUTION, MOBILE, DEVICE, EDIT, SERVER, HIGHLIGHT, PACKAGE (and similar terms)

GOOGLE PATENTS keywords include: video, clips, storyboard, mobile, device, server, proxy, defer, compact, golf course (and similar terms) LENS, keywords include: video, clips, editing, storyboard, mobile, device, server, proxy, defer, compact, golf course, resolution (and similar terms) GOOGLE keywords include: editing, video, low-res, high-res, phone, iPhone, storyboard, downsample, highlight, "golf course", camera, record (and similar terms)

AU internal databases, Esp@ce, LENS; applicant/ inventor search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*  Citation of document, with indication, where appropriate, of the relevant passages  Relevant to claim No.

Documents are listed in the continuation of Box C

<table>
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<tr>
<th>Category</th>
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<th>Relevant to claim No.</th>
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* Further documents are listed in the continuation of Box C

X See patent family annex

* "A" Special categories of cited documents:
  - "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
  - "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
  - "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
  - "&" document member of the same patent family

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

Date of the actual completion of the international search
20 August 2015

Date of mailing of the international search report
20 August 2015

Name and mailing address of the ISA/AU

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Authorised officer

Cade McTaggart
AUSTRALIAN PATENT OFFICE
(ISO 9001 Quality Certified Service)
Telephone No. 0262837926

Form PCT/ISA/210 (fifth sheet) (July 2009)
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<td>X</td>
<td>US 5112054 A (OSWALD) 12 May 1992 column 1 lines 60-68, column 2 line 1-11, column 7 lines 3-16 figs 1 when combined with D5</td>
<td>1-4 5-13</td>
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<td>Y</td>
<td>US 5184824 A (RIEDINGER) 09 February 1993 column 1 29-69, column 4 lines 14-18, column 7 lines 28-45, figs 1, 3 when combined with D5</td>
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<td>US 6053819 A (WILK) 25 April 2000 column 4 line 64-67, column 6 line 43, column 7 lines 46-54, fig 3 when combined with D5</td>
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<td>Y</td>
<td>US 4696474 A (TEGART) 29 September 1987 column 5 line 12-68, column 6 line 1-22, figs 1-2 when combined with D5</td>
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<td>X</td>
<td>US 2011/0026899 A1 (LUSSIER et al.) 03 February 2011 see abstract, paragraphs [0011], [0055], [0057], [0061], [0065], [0072], [0089], [0112] when combined with any of D1-D4</td>
<td>14-19 5-13</td>
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</table>
### Box No. II  Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.☐ Claims Nos.:
   because they relate to subject matter not required to be searched by this Authority, namely:
   the subject matter listed in Rule 39 on which, under Article 17(2)(a)(i), an international search is not required to be carried out, including

2.☐ Claims Nos.:
   because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3.☐ Claims Nos.:
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a)

### Box No. III  Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

**See Supplemental Box for Details**

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<table>
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<tbody>
<tr>
<td>1.</td>
<td>☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.</td>
</tr>
<tr>
<td>2.</td>
<td>☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.</td>
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<tr>
<td>3.</td>
<td>☑ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.: 1-19</td>
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<tr>
<td>4.</td>
<td>☑ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:</td>
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### Remark on Protest

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<td>☐</td>
<td>The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.</td>
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<tr>
<td>☑</td>
<td>The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.</td>
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<td>No protest accompanied the payment of additional search fees.</td>
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</table>
Continuation of: Box III
The specification does not comply with Section 40(4) because the claims do not relate to one invention only. I have found different inventions based on the following features that separate the claims into distinct groups:

- Claims 1-13 are directed to a sports complex comprising compact golf course that includes a first discrete area and a second discrete area, the areas being adapted so that, in combination, they functionally simulate a golf course. The feature of a sports complex comprising compact golf course with multiple discrete areas is specific to this group of claims;

- Claims 14-19 are directed to a method of producing a digital video package comprising at least two clips in high definition. The feature of producing a digital video package comprising at least two clips in high definition is specific to this group of claims;

- Claims 20-28 are directed to notifying a player of relative positions of a ball used in an accelerated golf game. The feature of determining the position of a golf ball and transmitting to a payer mobile device for the device to display a golf green and the relative position of the players balls is specific to this group of claims.

Unity of invention is only fulfilled when there is at least one "special technical feature" present in the claims that both:

- provides a technical relationship among all the claims; and,

- makes a contribution over the prior art.

When there is no special technical feature common to all the claimed inventions there is no unity of invention.

In the above groups of claims, the identified distinguishing features may have the potential to make a contribution over the prior art but are not common to all the claimed inventions and therefore cannot provide the required technical relationship.

Therefore there is no special technical feature common to all the claimed inventions and the requirements for unity of invention are consequently not satisfied a priori.
This Annex lists known patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

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<td>US 5184824 A</td>
<td>09 February 1993</td>
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<td>WO 201 1014772 A1</td>
<td>03 Feb 2011</td>
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End of Annex

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

Form PCT/ISA/210 (Family Annex)(July 2009)