# VidiReports – Audience Measurement
# VidiGates – Footfall Counter

An overview

**VidiReports** is image processing software which analyses a stream of images and computes a series of metrics describing the presence and the activity of the people appearing in those images. Typically, VidiReports is used to monitor the audience in front of a point of interest such as a screen, poster or sales item. A small camera captures the scene in front of the point of interest and VidiReports provides real-time quantitative and qualitative data on the live audience.

A brief description of each metric provided by VidiReports is provided below.

### Current Viewers
This represents the number of people currently accounted for by the system. The life cycle of a viewer begins when the viewer looks in the direction of the point of interest and ends when that viewer leaves the field of view of the camera.

### Dwell and Attention Times
The dwell time is defined as the length of time that the viewer is observed by the camera. The attention time is the time each viewer spends actively looking at the point of interest. This is evaluated as the time the viewer's face is oriented towards the point of interest. Clearly the attention time is always less than or equal to the dwell time.

### Gender
Each viewer is qualified according to their gender; accuracy of gender estimation is of the order of 85% and improves with the proximity of the viewer to the camera. In a minority of cases the system may not have enough data to make a decision and return a "gender unknown" label.

### Age bracket
Each viewer is categorised according to their age. Four brackets exist; child, young adult, adult and senior.

### Position
VidiReports reports the position of each viewer relative to the point of measurement.

### Distance
VidiReports can determine the approximate distance of each viewer from the point of interest.

### Opportunity to See
There are two standard marketing metrics that are used to gauge the effectiveness of a messaging strategy. "Opportunity to See" (OTS) quantifies the number of *potential* viewers of an advertisement and "Impressions" quantifies the *actual* views of an advertisement. Thus, an effective campaign will have high OTS figures and almost equally high impression figures. In digital signage, OTS is represented by the aggregate footfall in front of a given screen.

VidiReports computes a periodic estimation of the number of people who passed in the vicinity of the point of interest. This is done using the same camera as for viewers' counting.

VidiReports is consistent with audience measurement guidelines published by the Digital Place-based Advertising Association  DP-AA (www.dp-aa.org), and can produce the AUA (Average Unit Audience) metric favoured by that organisation.

Real-time data is also available at the point of measurement that can be used to create audience-specific playlists of content.  For example, if the system observes a majority male audience, it can trigger the playing of content specifically aimed at that audience.  Furthermore, the viewer's direction of travel can be used to trigger specific events.

**VidiGates** is a footfall counter that integrates with VidiReports and uses cameras placed above an entrance or area of interest to count bi-directional pedestrian traffic.  Up to eight 'gates' may be defined in the camera view and counters are incremented each time a person crosses a gate.

Data is sent regularly from each camera to a web-based data aggregator, **VidiCenter**, which presents a series of charts in a customisable dashboard.  An organisation may then draw comparisons across and between stores in order to optimise the customer impact of a campaign or product range.

Audience measurement users range from brands to advertising agencies, from retailers to research companies.  Each has their own motives for employing such technology.  For example, an advertising agency may wish to demonstrate that their campaign has reached a target demographic.  A brand manager may wish to understand the attention time that a particular age band of customer pays to their product range.  A research company may wish to understand the gender bias in a location throughout a typical day or week.

All users gain valuable market intelligence that was hitherto only possible to collect by human observation in a sub-sample of locations.  This market intelligence may then be used to fine-tune a campaign or store layout to ensure maximum effectiveness.