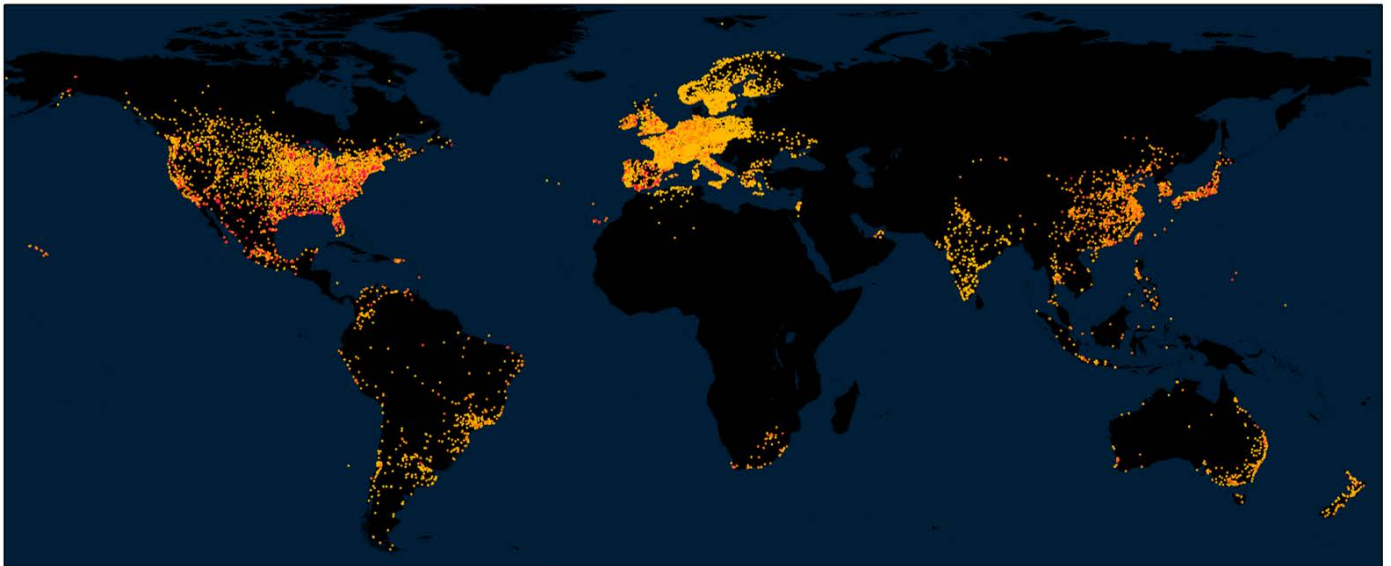


FILM IMPACT RATING

Rating the impact and success of films beyond the box office

The Film Impact Rating is a first step in the reconsideration of how we might understand the effectiveness of Australian films in a global industry. To move beyond the dominance of domestic box office as the sole measure of film success for formal distribution, we explored “impact” through three themed categories: coverage, commentary, and commercial performance. Coverage involves data concerning the location, volume, and saturation of film screenings; commentary covers critic and user ratings as well as award nominations and wins; and commercial data includes the traditional box-office return measure and box office relative to production budget size.

We have collected data for 36 Australian films from all venues within 46 countries (spanning mainly Europe, North America, South America, Asia, and Australasia). You can see the locations we are tracking in the following map:



The process of determining an ‘impact rating algorithm’ for the film impact rating is quite detailed and is described more fully in an article forthcoming in the academic journal *Studies in Australasia Cinema*. The purpose of this summary document is to outline our approach to determining key concepts and factors, including geographical data and temporal span.

The 3 Categories of Film Impact:

The Film Impact Rating (FIR) is currently based around 3 main concepts or categories assessing film performance around formal distribution:

1. Coverage – includes data concerning the location, volume, and saturation of film screenings
2. Commercial – incorporates the traditional box-office return measure and box office relative to production budget size
3. Commentary – covers critic and user ratings as well as award nominations and wins

The [Film Impact Rating](#) website invites the public to participate in producing their own impact ratings and based on this activity we will be able to determine which categories and sub-categories matter most in terms of determining film impact.

Film Impact Variables

These three main categories cover 14 variables that are each assigned a specific weighting used to calculate the impact rating. The variables include:

- **Film coverage**
 - » Number of countries visited
 - » Number of domestic screenings
 - » Number of international screenings
 - » Number of venues the film screened in (globally)
 - » Venue saturation
- **Financial performance**
 - » Domestic box office receipts
 - » International box office receipts
 - » Production budget as a percentage of worldwide box office
- **Critical Acclaim**
 - » Average user rating on IMDb
 - » Number of IMDb users polled
 - » Average critics rating on Rotten Tomatoes
 - » Number of critics polled on Rotten Tomatoes
 - » Number of award nominations received
 - » Number of awards won

Film Selection Criteria

Currently, the movies contained in the Film Impact Rating tool are contemporary Australian films. We hope to expand this in the future to incorporate films worldwide. The Australian movies used in the analysis were selected based on a number of criteria.

- IMDb was used as a basis for finding films that were produced or co-produced with Australia. All films that were tagged as 2012/2013 in IMDb were first considered in the analysis and this list was refined according to a number of criteria
- All films needed to exist in the International Showtime database in order to be eligible – the reason being is that the screenings and breadth of release variables are based solely on this database. IMDb contains many television, DVD, and shorts which do not make it to a big screen. As a result, by relying on the showtime database, we ensured only films that made it to cinemas were considered

- Films that only played at film festivals or were exhibited purely for marketing purposes were excluded. This was done by selecting all films with screenings less than 20 to be interrogated to identify which films had a theatrical release
- The main theatrical release of the film needed to rest within the data collection period of 1st December 2012 to the 1st June 2014. Many films either started before this or continued to screen after this period and were therefore not included in the analysis
- There were however a few films that were included even though they screened beyond this date or have scheduled releases in other countries after the 1st June 2014. The reason for including such films was because the majority of their theatrical release rested within the time period and they were particularly interesting films to analyse. These films are shown in the in italics. It is important to note, that due to the way the rating algorithm works these inclusions have affected the results. These film titles will only improve from their current FIR as they go through their exhibition schedule since most variables such as number of countries screened, box office, etc., will increase and hence drive up their overall FIR results.

Applying this selection criteria resulted in **36 films** used in the study.

Temporal Period

The time period used in the study was from the 1st December 2012 to the 1st June 2014. This was dictated by the showtimes database which started collecting data from December 2012 and will run until the end of 2014. This 18 month timeframe has provided us with the opportunity to examine impact on a more extended basis than typical calendar year evaluations. By approaching the data beyond the temporal restrictions of an annualised evaluation period we have been able to examine 36 titles across their full domestic and international releases. Also, by starting in December we managed to capture the important movie release period of Boxing Day and the New Year in Australia. This time period applies to all variables which have a temporal component – screenings and breadth of release. The remaining variables are either totals based on gross figures or do not have a temporal component.

| Film Title |
|---------------------------------------|
| 100 Bloody Acres |
| 3 Peas in a Pod |
| <i>Adore</i> |
| Backyard Ashes |
| Being Venice |
| Blinder |
| Blokes |
| Circle of Lies |
| Cosmic Psychos: Blokes You Can Trust |
| Die Reise zum sichersten Ort der Erde |
| Foreshadow |
| Goddess |
| I Am a Girl |
| In Bob We Trust |
| <i>Mystery Road</i> |
| <i>Patrick</i> |
| Return to Nim's Island |
| Satellite Boy |
| Save Your Legs |
| <i>Saving Mr Banks</i> |
| Shadow of Doubt |
| The Caretaker |
| The Darkside |
| The Earth Wins |
| The Great Gatsby |
| The Jungle |
| The Playbook |
| <i>The Railway Man</i> |
| <i>The Rocket</i> |
| The Sunnyboy |
| The Sunset Six |
| The Turning |
| <i>Tracks</i> |
| Uncharted Waters |
| Walking With Dinosaurs 3D |
| <i>Wolf Creek 2</i> |

Number of Screenings - Australia and International

Data for screenings was taken from the international showtime database. The number of showtimes within Australia and also internationally were counted and recorded. This provided us with figures for the variables Number of Domestic Screenings and Number of International Screenings. The number of screenings are the total screenings (theatrical and film festivals) for the 46 countries included in the study.

Venue Saturation

This variable reflects the intensity of the release – how the screenings were distributed (widely or on only a small number of screens) within each of the countries where the film showed. This data was taken from the international showtime database.

Breadth of Release

The breadth of release refers to the number of countries where the film was screened. Although only films that had a theatrical release were used for the analysis, if it had only a festival presence internationally, this will contribute to the number of countries screened. This is restricted to the 46 countries included in the database and therefore does not include instances where films also screened outside these countries. As a result, the maximum number of countries visited by a film will be 46. The variable of ‘number of venues the film screened in’ also relies on the international showtime database and is limited to venues that exist in the 46 countries in the study.

Box Office

Box office data was collected from a number of sources depending on availability.

- **International box office data:**
 - » International box office figures were sourced from IMDb and Box Office Mojo
 - » International figures are not bounded by the 46 countries covered in the screenings database, it is a total value for all countries where the film was screened
- **Domestic box office data:**
 - » The primary source for Australian domestic box office data was Rentrak

Where either international or domestic box office figures could not be reliably acquired from the abovementioned sources, box office figures were assigned based on estimates. These estimates were calculated based on domestic and international box office screen averages multiplied by the number of screenings (domestic and international). The average box office per screen both domestic and international for an Australian film was calculated based on the observations we had where this data did exist. As the average values of box office per screen are being applied where this data is not readily available we thought it prudent to round the average figures down to the nearest \$50 interval. Hence for domestic box office, the

average box office per screen is assumed to be \$250 and for international box office it is slightly lower at \$200 per screen. All box office calculations are based on current AUD valuations.

Production Budget

As the descriptive analysis of the data revealed, the level of the production budget proves to be a key factor that splits the sample in terms of film impact. As a generalisation big budget features have a bigger impact than small budget features. This is of course not unexpected, but what does become of interest is comparing films that fall within similar production budget spans.

A variable that we created based on the production budget and box office information looks at the size of the production budget relative to worldwide box office generated. Regardless of the size of the production budget and investment that has gone towards making a film, this variable provides an indication of a film's financial viability (at least in terms of its cinematic release and the revenue generated relative to the cost of production incurred). This variable is expressed in percentage terms where a value below 100% indicates a film has generated box office in excess of production costs and where the smaller the value the better the performance on this indicator. Values over 100% indicate that production costs exceed box office.

Source data on the size of production budgets was obtained from IMDb as well as from cited media reports. There were 6 films where searches yielded no resultant data. For these films the research team utilised industry networks and contacts to get an estimated production band that the films are believed to have fallen into. For the variable construction purposes the mid-point of the band was then used.

Critics and User Ratings

Two sources of rating data were incorporated based around web user audience ratings sourced from IMDb as well as expert critical rating sourced from Rotten Tomatoes. [should we date when we sourced the information (since this is dynamic data?)

- For audience ratings from IMDb the average user score out of 10 was used as was the number of users who entered a rating score of the film title. Of the 36 films covered, only two did not have any user rating on IMDb. For these films when constructing the film impact rating index their values on these variables were set to zero and the results across films the remaining 34 films that did have a score from users engagement were then scaled accordingly.
- Expert critical rating was also gathered from Rotten Tomatoes to be incorporated into the film impact ranking tool. This was based upon average critic rating converted to a score out of 10, as well as incorporating the number of critic reviews for the film. Of the films included there were 15 that had no critic rating on Rotten Tomatoes, hence a similar method to that used for the missing IMDb data described above was applied whereby the value was set to zero where exact values were not available, and then across the remainder of the films that did have values normalised values were applied.

Awards

Data on both the number of award nominations and the number of awards won was sourced from IMDb and incorporated into the film impact rating index as a variable designed to reflect a film's critical acclaim. Given the prestige in simply being nominated for an award it was determined that both nominations and awards won both be included.

Normalising the Data

Each of the variables were normalised to ensure a relatively even distribution and fit to facilitate the generation of a film rating index. The values associated with each of the 14 variables used to construct the index were scaled to fall between the values of 0 and 1. This ensured that all variables were evenly weighted and statistically comparable.

Our Weightings

Within each category all variables are identified (14 in all) and assigned a weighting. When the individual variable weightings are summed across all the variables they add to 100%. The index is therefore constructed so that films receive an overall rating score ranging between 0 and 100, where a higher index value means a film is deemed to have more impact compared to a lower index value film.

Within each category, the following 14 variables are taken into account and were assigned a weighting as indicated:

- **Film coverage (Total 39%)**
 - » Number of countries visited 9%
 - » Number of domestic screenings 8%
 - » Number of international screenings 8%
 - » Number of venues the film screened in 7%
 - » Venue saturation 7%
- **Financial performance (Total 24%)**
 - » Domestic box office receipts 7%
 - » International box office receipts 7%
 - » Production budget as a percentage of worldwide box office 10%
- **Critical Acclaim (Total 37%)**
 - » Average user rating on IMDb 7.5%
 - » Number of IMDb users polled 4%
 - » Average critics rating on Rotten Tomatoes 7.5%
 - » Number of critics polled on Rotten Tomatoes 4%
 - » Number of award nominations received 6%
 - » Number of awards won 8%

The index is calculated using the following **algorithm**:

$$=((\text{Variable1} \times 0.09) + (\text{Variable 2} \times 0.08) + (\text{Variable 3} \times 0.08) + (\text{Variable4} \times 0.07) + (\text{Variable5} \times 0.07) + (\text{Variable6} \times 0.07) + (\text{Variable7} \times 0.07) + (\text{Variable8} \times 0.1) + (\text{Variable9} \times 0.075) + (\text{Variable10} \times 0.04) + (\text{Variable11} \times 0.075) + (\text{Variable12} \times 0.04) + (\text{Variable13} \times 0.06) + (\text{Variable14} \times 0.08) \times 100)$$

Credits

Concept and calculations for the Film Impact Rating by the **Kinomatics Team**

(<http://kinomatics.com/about/the-team/>)

Technical development by **James Verhoeven** (<http://www.linkedin.com/in/jamesverhoeven>)

Website designed by **Viveka de Costa and James Verhoeven** (<http://www.thecommonroom.com.au/>)

This research was supported under Australian Research Council's Discovery Projects funding scheme (DP120101940).



Australian Government
Australian Research Council

Any questions, please contact **Alwyn Davidson** at: alwyn.davidson@deakin.edu.au

THE RESULTS

| Overall Rank | Title | Coverage /100 | Commentary /100 | Commercial Performance /100 | FIR /100 |
|--------------|--------------------------------------|---------------|-----------------|-----------------------------|----------|
| 1 | <i>Saving Mr. Banks</i> | 100.00 | 91.29 | 94.82 | 95.53 |
| 2 | The Great Gatsby | 100.00 | 83.44 | 100.00 | 93.87 |
| 3 | <i>The Railway Man</i> | 80.14 | 49.07 | 65.71 | 65.18 |
| 4 | Walking With Dinosaurs 3D | 91.05 | 15.62 | 87.25 | 62.23 |
| 5 | The Rocket | 20.16 | 77.99 | 42.08 | 46.82 |
| 6 | Tracks | 42.66 | 36.78 | 49.01 | 42.01 |
| 7 | <i>Adore</i> | 38.97 | 26.78 | 41.20 | 35.00 |
| 8 | <i>Wolf Creek 2</i> | 24.61 | 29.18 | 54.48 | 33.47 |
| 9 | <i>Mystery Road</i> | 7.05 | 49.60 | 39.25 | 30.52 |
| 10 | Satellite Boy | 8.55 | 40.42 | 42.17 | 28.41 |
| 11 | The Turning | 3.62 | 43.02 | 43.34 | 27.73 |
| 12 | Return to Nim's Island | 24.99 | 15.55 | 43.19 | 25.86 |
| 13 | In Bob We Trust | 3.88 | 38.99 | 38.98 | 25.29 |
| 14 | Goddess | 18.48 | 14.65 | 42.00 | 22.71 |
| 15 | 3 Peas in a Pod | 18.19 | 14.00 | 40.63 | 22.03 |
| 16 | Backyard Ashes | 7.74 | 19.91 | 42.72 | 20.64 |
| 17 | Save Your Legs | 8.94 | 14.96 | 40.88 | 18.83 |
| 18 | The Darkside | 2.09 | 21.41 | 39.98 | 18.33 |
| 19 | Cosmic Psychos: Blokes You Can Trust | 1.14 | 20.38 | 41.22 | 17.88 |
| 20 | 100 Bloody Acres | 3.34 | 28.54 | 20.37 | 16.75 |
| 21 | Uncharted Waters | 4.06 | 15.93 | 36.94 | 16.34 |
| 22 | Die Reisezumsichersten Ort der Erde | 1.18 | 14.96 | 40.90 | 15.81 |
| 23 | The Earth Wins | 2.16 | 20.37 | 30.35 | 15.66 |
| 24 | The Playbook | 1.33 | 16.90 | 29.33 | 13.81 |
| 25 | Blokes | 0.06 | 14.00 | 35.04 | 13.61 |
| 26 | I Am a Girl | 1.08 | 16.13 | 28.03 | 13.12 |
| 27 | The Jungle | 3.87 | 0.07 | 41.06 | 11.39 |
| 28 | Blinder | 15.42 | 2.48 | 15.89 | 10.75 |
| 29 | The Caretaker | 2.63 | 4.93 | 31.72 | 10.46 |
| 30 | The Sunset Six | 1.70 | 11.59 | 21.75 | 10.17 |
| 31 | <i>Patrick</i> | 3.01 | 15.96 | 11.88 | 9.93 |
| 32 | The Sunnyboy | 0.80 | 15.14 | 14.36 | 9.36 |
| 33 | Shadow of Doubt | 0.18 | 0.00 | 32.28 | 7.82 |
| 34 | Being Venice | 2.49 | 4.35 | 0.01 | 2.58 |
| 35 | Circle of Lies | 1.13 | 0.99 | 0.09 | 0.83 |
| 36 | Foreshadow | 0.56 | 0.01 | 0.02 | 0.22 |