

Using Interactive Data Visualization to Explore Non-Linear Movie Narratives

RASAGY SHARMA & VENKATESH RAJAMANICKAM

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ABSTRACT For the process of storytelling, various narrative structures have been explored to make a simple story more interesting to the audience. A non-linear narrative is one such structure. While techniques such as in media res, flashbacks, and flash-forwards have been used since ancient times, these techniques have been extensively used in several movies in the past two decades. Such movies keep the viewers interested even after they leave the theatre, and lead to several in-person and online discussions.

This paper highlights how data visualization can also help extend the movie experience and aid in discussions around the narrative. Apart from letting users relive special moments from a movie, such a visualizations can also summarize the overall structure and timing of the non-linear narrative, and explore cues and elements of continuity used. For the purpose of demonstration, this paper uses the non-linear narrative of the movie *(500) Days of Summer* (2009) to create an interactive data visualization using the D3.js JavaScript library.

1 INTRODUCTION

Non-linear movies are as old as movies themselves. However it is only in the past twenty-five years that they have been gradually accepted into the mainstream. Discussions about such movies have also increased among film scholars, professional movies critics, and general movie enthusiasts. The recent movie *Interstellar* (2014), for example, came with a book *The Science of Interstellar* written by Kip Thorne, the California Institute of Technology physicist who served as science advisor on the film, and Christopher Nolan, the film's director. A Google search for "Interstellar explained" returns twelve million results. Top results lead to in depth articles in popular

press, elaborate blog posts, YouTube videos, spirited discussions on forums such as Quora and Reddit, meticulously created infographics and so on. Movies with ever more complex narrative structures are eagerly consumed and vigorously analyzed by movie lovers all over the world.

Through a visualization of the movie *(500) Days of Summer* (2009) we show that data visualization, which help readers understand complex information, can play an important role in not only understanding complex narratives, but also enable analysis of their form and substance both quantitatively and qualitatively.

In section two of the paper, we provide historical background, trace the reasons for the rise, and present the purpose and consequences of non-linear movies. Section three looks at movies as data source and presents related work on visualizing narratives, followed by case study of our visualization of the movie *(500) Days of Summer* in section four. The paper ends with conclusions and perspectives for future work in section five.

2 NON-LINEAR NARRATIVES

2.1 THE RISE OF NON-LINEAR MOVIES

Allan Cameron claims that in the past twenty-five years "popular cinema has displayed a turn towards narrative complexity."¹ Among other factors, he argues, digitization has made it easier for filmmakers to divide their plots into complex segments that scramble linearity and manipulate temporal sequences.

Storytellers have been using non-linearity to hook audiences, build expectations, and create suspense for thousands of years in the oral and written literary tradition. However, cinema has suffered the lack of this device, as it has no built-in tense system as language does. As Brian Henderson points out, "One cannot write a sentence without indicating tense but one can apparently make a shot, and therefore perhaps a film, without indicating tense. In written discourse the tense structure must be renewed with every sentence and, concomitantly, a single sentence may subvert that structure."²

Mainstream cinema has mostly made chronologically ordered and causally related narratives. But where comprehensible shifts of tenses is to be achieved, filmmakers have used language ranging from explicit dialogue setting up a return to the past, to the direct intervention of language in the form of titles or voice-over. Other devices include: indirect dialogue, music, and visuals such as blurs, ripples, fades, or dissolves. However, because of the nature of the recording medium—first celluloid film and later magnetic video tape—and the possibility to jump from one place to another, or cut the movie into pieces that

they afforded, has enabled film makers to scramble sequence and experiment with the narrative structure of films. Arrival of digital film and easy to use editing tools has only extended this possibility even further.

This infinitely manipulatable medium has given rise to complex plots and story situations. Jason Mittell writing about contemporary television, argues that many contemporary narratives foster an “operational aesthetic,” in which audiences take pleasure, not only in the story, but in the technical craft through which the story is conveyed. Mittell suggests that they embrace “a game aesthetic, inviting audiences to play along with the creators to crack the interpretive codes to make sense of their complex narrative strategies.”³

2.2 HISTORY OF NON-LINEAR MOVIES

Almost as soon as film was invented, avant-garde artists began experimenting with the structure of narrative, challenging continuity and orderly unfolding of a story, to create the early non-linear films. *Intolerance* (1916) is considered one of the masterpieces of the silent era and it displays four parallel stories from different ages in world history.

Luis Bunuel collaborated with Salvador Dali in *Un Chien Andalou* (1928), in which disturbing erotic and violent images are arrayed in non-sequential order. *The Power and the Glory* (1933) used flashbacks to tell the life of the central character who died in the first scene. This film influenced one of the greatest films of all-time, *Citizen Kane* (1941).

Russian filmmakers Dziga Vertov, Sergei Eisenstein and Alexander Dovzhenko experimented with the possibilities of nonlinearity. Eisenstein's *Strike* (1925), Vertov's *The Man With a Movie Camera* (1929) and Dovzhenko's *Earth* (1930) hint at a nonlinear experience. Japanese filmmaker Akira Kurosawa's *Rashômon* (1950) played with conflicting points of view to create a unique narrative structure.

In the late fifties and sixties, Alain Resnais, working with experimental writers like Alain Robbe-Grillet and Marguerite Duras, and drawing on ideas developed by those writers in their fiction writing, employed narrative structures that closely mirrored the structure of the story's emotions in *Hiroshima Mon Amour* (1959) and *Muriel* (1963).

A contemporary of Alain Resnais, Jean-Luc Godard, once said that he wanted to make films with a beginning, a middle, and an end, but not necessarily in that order. His films, too, did not follow the story arcs of conventional films and were full of very diverse elements such as signs,

posters, photographs, large placards, newsreels, and unusual voice-overs.

Andy Warhol, Federico Fellini, Ingmar Bergman, Andrei Tarkovsky, Nicolas Roeg, Robert Altman, and Woody Allen made important non-linear art house movies from the sixties through the eighties. But these directors, just as the earlier directors, served a knowing audience for whom experimentation was almost a norm, or at least something expected.

Thus, it was not until the nineties, and with critical and box-office success of Quentin Tarantino's *Pulp Fiction* (1994), that non-linear movies exploded into the public consciousness. Other important non-linear films of the nineties and the first decade of the 21st century include: Atom Egoyan's *Exotica* (1994), Wong Kar-wai's *Chungking Express* (1994), Paul Thomas Anderson's *Magnolia* (1999), David Lynch's *Mulholland Dr.* (2001), Alejandro González Iñárritu's *Amores Perros* (2000) and *21 Grams* (2003), Gaspar Noé's *Irréversible* (2002), Michel Gondry's *Eternal Sunshine of the Spotless Mind* (2004), Shane Carruth's *Primer* (2005), and Edgar Wright's *Scott Pilgrim vs. the World* (2010).

Movies with intricate plot structure with an arrangement of events not just complex, but complicated and perplexing; the events not simply interwoven, but entangled, came to be made for mainstream movie audience. *The Guardian* writer Phil Hoad writes, “The world, as it hit the 21st century, seemed to agree: non-linear found perfect subject material in globalized complexity. Both the haphazard mesh of human interactions in booming world city-states, and the butterfly-flaps-its-wings patterns of cause and effect on a shrinking planet seemed best dealt in disorderly fashion.”⁵ The trend was further fuelled by the parallel growth of the social Internet, which became a platform where movie enthusiasts sought to extend the movie experience by endlessly analyzing and collectively solving the puzzling narrative structures.

2.3 PURPOSE AND CONSEQUENCE OF NON-LINEAR NARRATIVES IN MOVIES

Among the plethora of non-linear movies that came out in the last twenty years, some movies appear to have worked better than the others. Film scholars and critics have speculated at length on the reasons for this.

Complex story (Narrative): The events a non-linear narrative selects, combines, and arranges must appear probable and even necessary rather than contingent and haphazard.⁶ Also plots that are populated with characters who are schizophrenic, lose their memory, are unreliable

narrators, or plain dead, lend themselves well to non-linear narrative structure. These films, in general, seek to blur the boundaries between different levels of reality, are riddled with gaps, deception, ambiguity, and overt coincidences, and are therefore best positioned to exploit the structure of the narrative.

Noted film critic David Denby writing for *The New Yorker* explains *Pulp Fiction* (1994) thus: “A sardonic view of chaos, *Pulp Fiction* suggests that contingency and chance rule a good part of our behavior. A trip to the bathroom, normally a quiet moment in anyone’s life, becomes an absurdist entry wedge into metaphysical disharmony. Time is out of joint in *Pulp Fiction*. It doesn’t really advance, which means that planning for future action is meaningless.”

In Christopher Nolan’s *Memento* (2000), the fragmented and non-linear narrative structure puts the audience in the shoes of the protagonist. The structure recreates for the viewers, a condition in which they must struggle, much like the protagonist, to create a coherent narrative out of all the pieces they confront.

Complex Telling (Narration): If a movie isn’t focused on plot but instead wants to create more emphasis on characters and themes, a non-linear narrative structure can offer narrative information regarding the end of the film well before the events leading up to it have been established. This can get the plot out of the way and focus on the desired development of characters and themes. Marc Webb’s (500) *Days of Summer* is a good example of such a movie. What would have been an ordinary boy-meets-girl plotline becomes an intense character study by the cleverly juxtaposed stages of relationship in the story’s timeline.

Operational Aesthetic (Strategy): If the purpose of a movie is to create delight in disorienting or misleading spectators by carefully hiding or altogether withholding information, where there are the frequent plot twists and trick endings, a non-linear narrative structure becomes a perfect vehicle. Thomas Elsaesser calls such a movie “The Mind-Game Film.”⁸ According to him, David Fincher’s *Se7en* (1995), Bryan Singer’s *The Usual Suspects* (1995), Tom Tykwer’s *Run Lola Run* (1998), John Woo’s *Paycheck* (2003) and John Maybury’s *The Jacket* (2005) fall in this category.

Select and Combine (Database): In this form of storytelling the narrative arc of the story has not been predetermined by the director. Instead, the user’s interac-

tion with the content determines the story that emerges. There may even be opportunities for integrating user-generated content. Time and order are disrupted in favor of space and randomness. Like narrative, database also represents a basic way of organizing human experience. A database can be a library, a museum, or any large collection of cultural data.

Manovich and Kinder use the word database as a metaphor to denote how a collection of digital data can be searched, navigated, combined and viewed in a variety of ways.^{9,10} Vertov’s *The Man With a Movie Camera* is an early example of a database movie. An example of a rigorously metadata-driven narrative may be found in Manovich’s *Soft Cinema* (2002) project, whose structure depends on “algorithmic editing,” an automated system for combining elements according to prescribed rules based on the formal properties or content of video clips.¹¹

3 MOVIES AS A DATA SOURCE AND VISUALIZING NARRATIVES

The desire to record data from narratives—especially from movies—is not a new one. One can use such data to compare different types of media, like the Media Species project that compares 1930s cartoons, song sequences from Bollywood films, US TV political ads etc.¹² Specific to narratives in movies, several scholars have analyzed this medium from a macro perspective; collecting data about multiple movies to compare and contrast several movies. This can provide insights about movies from a particular era, like the quantitative analysis of the top twenty-five movies from 1931–2013; or show the uniqueness of a particular director’s work, like the analysis of mean shot lengths of two movies by Russian filmmaker Dziga Vertov in comparison to other movies in the past century.^{13,14}

Specific to a particular movie, there are several types of quantitative data that can be derived, and this gave rise to the field of Cinematics. Cinematics is the statistical analysis of quantitative data, descriptive of the structure and content of films that might be viewed as aspects of style.¹⁵ The initial attempts in this field focused on attributes based on concepts that filmmakers use. For example, Barry Salt collected a wide variety of data from a film’s formal shot parameters that are under the director’s control to determine what is most significant in identifying a director’s individual style.¹⁶ This included the overall length of the movie, shot lengths, shot type, shot scale, camera angle, camera movement etc.¹⁷ Such use of quantitative data to derive quantitative insights was used not just by film historians and researchers like Lev Manovich and Barry Salt, but also by movie directors themselves,

as is evident from Dziga Vertov’s editing diagrams, Kurt Kren’s shot plan, etc.¹⁸ Another source of data is the script, which includes data about character appearances, scenes, dialogues, etc. A visualization of *The Mahabharatha* analyzes character appearances and visualizes which characters are closely related.¹⁹ A similar approach is taken for visualizing characters in movies and TV series, like *Lostalgic*, which visualized ABC’s *Lost* TV Show, to highlight insights such as relationship between characters in the show.²⁰

With movies now available in digital formats, visual and audio attributes can also be easily analyzed. Video montages highlighting symmetry in Wes Anderson movies, scenes from *Grand Budapest Hotel* (2014) sorted by different shades of color, display of texting and internet in movies etc., present data about composition, color, VFX techniques by hand-picking scenes from a movie.^{21, 22, 23} The process of collecting this data can also be automated using computational algorithms. For example, Cinema Redux creates a single visual distillation of an entire movie by capturing a frame every second, and presenting this in a grid; Movie Barcode Generator compresses the scenes from a movie into a barcode, dataTron compares average color and audio of the movie *Tron* (1982) and its sequel *Tron Legacy* (2010).²⁴ All the above examples derive quantitative data from the visual and audio attributes of the movie, and present qualitative insights that are open to interpretation, unlike the quantitative insights presented using Cinemetrics.

Specific to non-linear movies, there are several examples of static charts about the narrative structure of movies such as *12 Monkeys*, *Memento*, and other popular movies.²⁵ These charts give a glimpse of how the movie unfolds, and how the characters interact with each other. There is further scope in deriving quantitative data from the script, including qualitative elements such as emotions, metaphors, relationships etc., to derive qualitative insights about how non-linear narratives work. Such visualizations could also be interactive, allowing the viewer to explore the data, validate a hypothesis made while watching the movie, and derive his/her own insights about the overall narrative structure of the movie.

4 CASE STUDY: (500) DAYS OF SUMMER

As mentioned in section 2.3, *(500) Days of Summer* is a romantic comedy about a male protagonist (Tom) and his memories of a failed relationship (with Summer). As the narrator hints at the beginning of the movie, it’s a boy-meets-girl story, and several readers have pointed out that the story follows the traditional story

arc of the same three act, seven sequence structure as any other romantic comedy.²⁶

4.1 NON-LINEARITY IN THE MOVIE

Even though the movie has a traditional story, the way the narrative is presented makes the movie non-traditional. The movie narrative jumps non-linearly across different days of the relationship. It uses title cards with the day number and a sketch of a city with a tree (that represents the relationship status using color/presence of leaves) to explain the current position of the narrative. The movie uses the Book Ends trope by starting with Day 488, quickly jumping to the beginning when Tom meets Summer, and then presenting glimpses from the time they were acquaintances, they were in a relationship and after they broke up²⁷

4.2 NARRATIVE AS A DATASET

The main sources of data about the narrative are the script and the final movie. However, since only the first draft of the script was available online, data was manually collected while watching the movie, as shown in FIGURE 1.²⁸ The scene number, start and end times, day number, relationship status (acquaintance, in a relationship, broken up) were recorded along with a description of the scene, location, and one relevant/most-interesting quote. Scene length was computed from the times. Multiple scenes of the same day were considered one scene, and scenes without any day number (like interviews of different actors) were discarded and those with multiple day numbers (like 456–476) were considered one scene (with starting day as the day number). The final dataset is available in appendix.

4.3 INITIAL ANALYSIS

Once the data was ready, a few questions were selected to understand the nature of the narrative and choice of scenes. Which days were shown for the longest time? Does the scene length have any relation to the narrative? How were the scenes distributed across the varying relationship

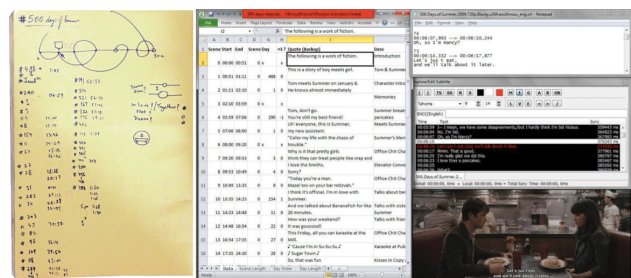


FIGURE 1: Recording data on paper and Excel.

of Tom and Summer? Microsoft Excel was used to create charts using default templates to answer these questions.

FIGURE 2 shows the final charts. The first and second charts show the scene lengths (and day number) of each scene. While the scene lengths appear to change gradually, the three longest scenes stand out: Day 28 (415s), which is the day Tom and Summer become really close during the karaoke at the pub; Day 402 (360s), when it appears that they might get together again; and Day 488 (346s), which is the book-end scene that finally explains the first scene of Day 488 in detail.

The third chart shows which day is shown per scene, with a line for Day 275 that separates the days they are together and the days their relationship breaks apart. The movie narrative seems mostly linear, with a few jumps to the days after Day 275 and back, and after Scene 30 the movie progresses linearly till the end. The choice to shift between the relationship states becomes more evident in the fourth chart that plots the relationship status

(positive when together, zero when with acquaintances, and negative when not together). The juxtaposition of contrasting states is one of the key devices used in the movie's narrative, making the viewing experience more interesting.

4.4 VISUALIZATION DESIGN

To highlight the flow and non-linearity, the final form was chosen to move away from the discrete straight lines in the Excel charts to a smoother, continuous flowing form of arc diagrams. Such a diagram provides a kind of bird's-eye view, as well as specific details, as noted by Watternberg.²⁹ However, one of the issues with arc diagrams as used by Watternberg are their lack of direction, which can be fixed by making the arcs continue below the horizontal axis in a clockwise (or anti-clockwise) order, as is done by Dittus.³⁰ A similar approach was taken to create a continuous spiral with the days in ascending order on the horizontal axis.

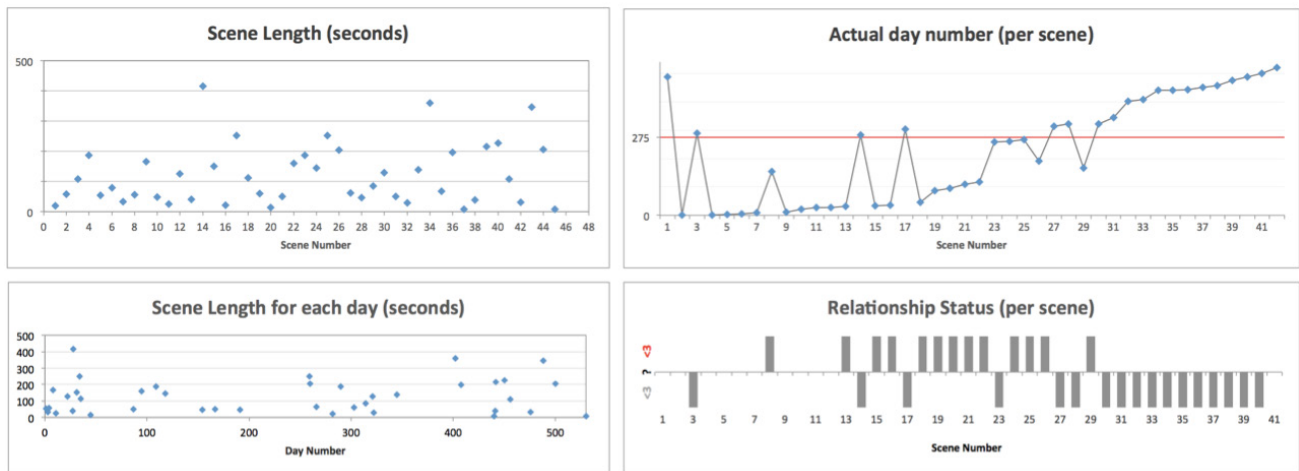


FIGURE 2: Left- Scene lengths for each scene and days (1 and 2), Right- Actual day number and relationship status per scene (3 and 4)

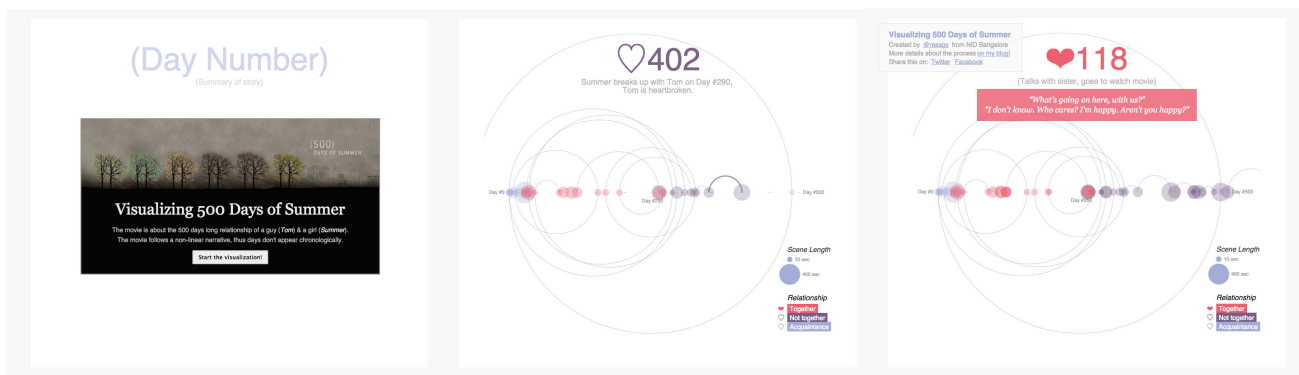


FIGURE 3: Visualization stages – Establishing shot, transitions, interactivity

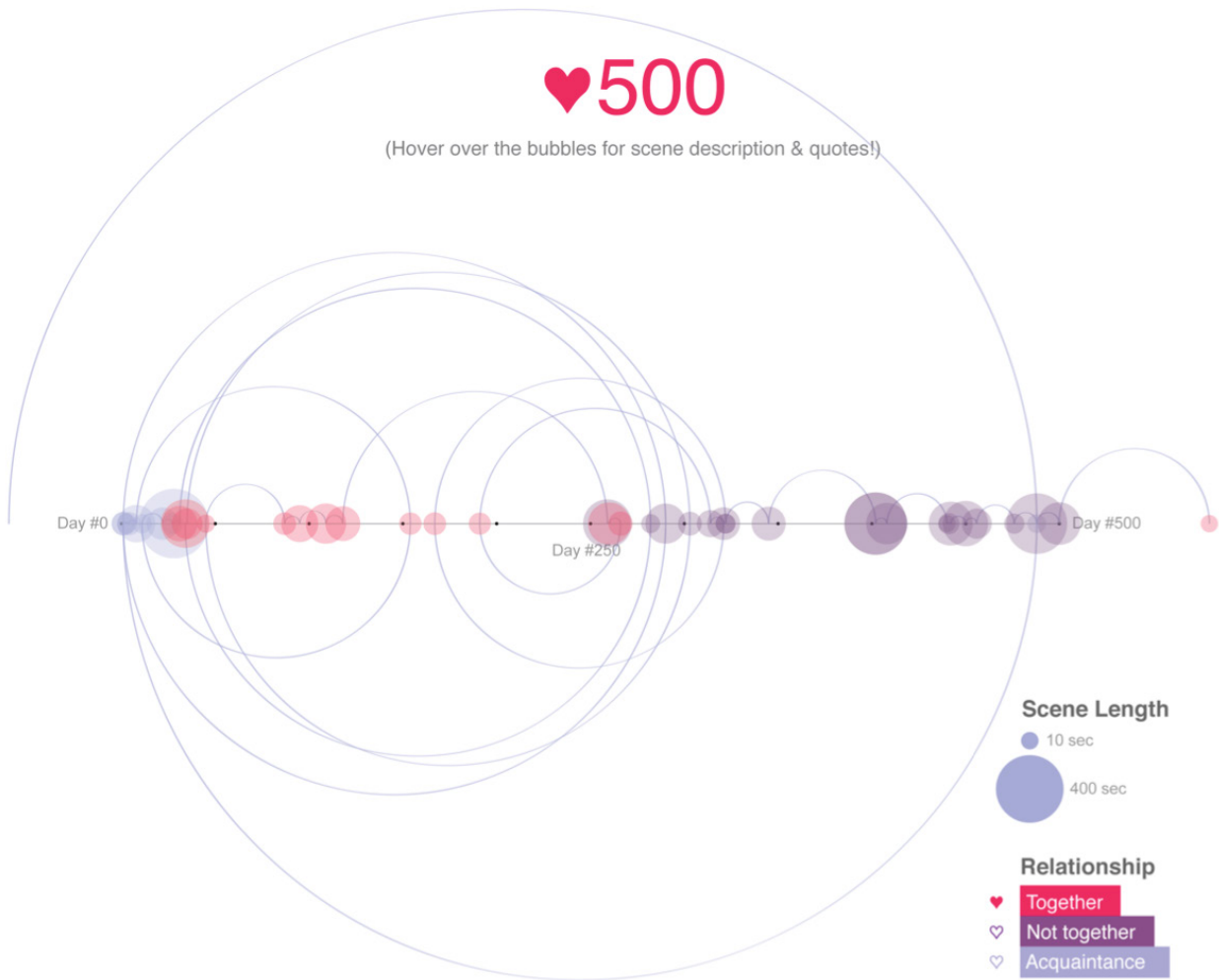


FIGURE 4: Final visualization of (500) Days of Summer

4.5 PROTOTYPING USING JAVASCRIPT

A static prototype was created using the D3 Javascript library.³¹ This Javascript framework was preferred over Processing due to the use of SVG—instead of canvas—that makes it easy to create interactive visualizations. The size of the circles represented the length of the scene, while arcs connected them in the order in which they are presented in the movie. A three-color palette was chosen based on various “love” themed color schemes from Adobe Color CC to represent the three relationship states.³²

4.6 TRANSITIONS AND INTERACTIONS

At this stage, a decision was taken to move away from

author-driven narrative for the visualization (which would lack interactivity) and include ways for the viewer to interact. An approach similar to the narrative pattern called the Martini Glass structure was taken to first introduce the viewer of the visualization to the non-linear narrative by animating the arcs and circles, and then allowing the viewer to interact and explore the data related to any of the scenes.³³ To make the initial author-driven transitions more engaging, annotations about the major sections of the movie, as well as visual highlighting during the transitions were added. An establishing shot was added to introduce the topic of the visualization and a call-to-action button to start the transition as shown in FIGURE 3. The final visualization and the code is available on *Github*.

4.7 NARRATIVE ANALYSIS USING VISUALIZATION

The final form of the visualization, as shown in FIGURE 4, highlights several aspects of the narrative. The size of the arc represents the number of days between two consecutive scenes. Apart from the initial jump to Day 488 and back to Day 1, most scene transitions were less than 250 days apart. The clockwise order gives a visual summary of how many times the narrative moved in the forward direction (above the horizontal axis) and backward direction (below the horizontal axis). This proves the common observation made by several viewers that most of the movie is linear (moving forward in time), as one can see only seven arcs below, representing seven scene transitions that move backward in time.³⁵

However, unlike remarks that these are “a few random scenes from different times thrown in to mix it up and give the illusion of a haphazard structure,” these are carefully selected scenes, with six out of the seven scene transitions jumping from one relationship status to another—thus creating a contrast in the mood and theme. This is visible via different color of circles connected by these arcs flowing backwards. Four of these arcs connect days just after the breakup with the initial days of acquaintance and relationship (consecutively), thus following the emotionally high scenes with exact contrasting scenes.³⁶

The interactive nature of the visualization highlights subtle cues and elements of continuity, such as linking scenes based on location/theme (Day 282 followed by Day 34, both shot in IKEA yet with completely contrasting relationship states). This aligns with the human tendency not to remember events linearly as machines, but to “knit together the highlights and lowlights,” thus connecting better with the audience of the movie.³⁷ These instances of moving back in time are the reason why the narrative of the movie works so well. The primary linear scenes fall into three groups: when they meet (Days 1–28), when they are deeply in love (Days 87–118), and when Tom is finally getting over Summer (Days 345–500).

The sizes of the circles do not just highlight the three major scenes (as mentioned in section 4.3), but also invites the viewer to explore what these key scenes were about. This shows the scenes for the initial build-up (from acquaintances to getting into a relationship) gradually becoming longer, the scenes when they are in the relationship being shown as quick snapshots (that provide the much needed contrast), and the last part of the movie having long scenes about Tom getting over Summer.

This visualization is not just useful for those studying the narrative structures. A casual movie viewer can also relive the non-linear narrative experience using this

visualization and enjoy the movie even after leaving the movie theatre.

5. CONCLUSION AND FUTURE WORK

Visualizations of narratives like the one for *(500) Days of Summer* can be both visually appealing and insightful. Such visualizations must aim at both the primary goal of visualization, i.e., to be understandable, as well as catch the viewer’s attention.³⁸ The designer of the visualization can take either the author-driven narrative approach by showing a specific aspect of the narrative structure, or an open-ended reader-driven approach where the viewer can explore various aspects of the narrative, or a mix of both the approaches, as was done in the case of the above visualization.

Creating visualizations that are based on qualitative aspects of the movie—and not just the easy to measure attributes—might unravel new insights about narrative structures. Creating visualization systems that can allow comparison of the narrative structure of multiple movies would assist cinema enthusiasts and film critiques in understanding why particular non-linear narratives work better than others. A tool to allow shuffling the order of scenes based on several parameters would make for an ideal study on which non-linear structure works best for one story.

Such visualizations would also help narrative authors find new understanding about why some movie narratives work, and propose structures that can be used for future movies. A tool that presents a linear narrative in a non-linear fashion (based on the proposed structures) would make creation of such non-linear narratives easier and effective.

Lastly, such visualizations would also be useful for the casual movie audience who simply want to relive the key moments of the movie, or understand the movie better. This can also keep the audience engaged for much longer than the original movie duration and allow movies to gain more popularity by extending discussions about the movie to different platforms. Surely, there is an immense potential scope for such collaborations between data visualization designers, narrative authors, and film enthusiasts.

BIOGRAPHY

Rasagy Sharma is an Information & Interface Design post-graduate student at NID Bangalore. He is interested Data Visualization, Generative Art and allied areas in the intersection of data, art & technology.

Venkatesh Rajamanickam is currently an Associate Professor at the Industrial Design Centre, IIT Bombay. His research interests include HCI, data visualization, and technology & learning.

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APPENDIX

DATASET USED FOR (500) DAYS OF SUMMER VISUALIZATION

| SCENE | LENGTH (SEC) | DAY | RELATIONSHIP STATUS | QUOTE | LOCATION |
|-------|--------------|-----|---------------------|--|--------------------|
| 0 | 51 | x | x | The following is a work of fiction. | x |
| 1 | 20 | 488 | 0 | This is a story of boy meets girl. | Park |
| 2 | 59 | 1 | 0 | Tom meets Summer on January 8. He knows almost immediately she's who he's been searching for. | Office |
| 3 | 10 | x | x | | x |
| 4 | 187 | 290 | -1 | "I think we should stop seeing each other." | Restaurant |
| 5 | 54 | 1 | 0 | "Uh everyone, this is Summer, my new assistant." | Office |
| 6 | 80 | x | x | "Color my life with the chaos of trouble." | x |
| 7 | 33 | 3 | 0 | "Why is it that pretty girls think they can treat people like crap and get away with it? Centuries of reinforcement." | Office |
| 8 | 56 | 4 | 0 | "I love the Smiths." "Sorry?" "I said I love the Smiths. You have good taste in music!" | Office (Elevator) |
| 9 | 166 | 8 | 0 | "Today you're a man. Mazel tov on your bar mitzvah." | Office |
| 10 | 48 | 154 | 1 | "I think it's official. I'm in love with Summer." | Street |
| 11 | 25 | 11 | 0 | "And we talked about Bananafish for like 20 minutes We're so compatible, it's insane." | Home |
| 12 | 126 | 22 | 0 | "People don't realize this, but loneliness is underrated." | Pub |
| 13 | 41 | 27 | 0 | "This Friday, all you can karaoke at the Mill." | Office |
| 14 | 415 | 28 | 0 | ♪ Cause I'm in Su-Su-Su ♪ ♪ Sugar Town ♪ | Pub |
| 15 | 151 | 31 | 1 | "So, that was fun the other night." *Kiss* | Office (Copy room) |
| 16 | 22 | 282 | -1 | "Ah, hon? Our sink is broken. Man, all of our sinks are broken." | IKEA |
| 17 | 252 | 34 | 1 | "Darling, I don't know how to tell you this, but... there's a Chinese family in our bathroom." | IKEA |
| 18 | 113 | 35 | 1 | ♪ You make my dreams come true! ♪ ♪ Ooh-ooh you ooh-ooh! ♪ | Street |
| 19 | 60 | 303 | -1 | "Well, you know, Henry Miller said the best way to get over a woman... is to turn her into literature." | Office |
| 20 | 15 | 45 | 1 | ♪ too too tututoo ♪ "Your girl is losing it." | Office |

| SCENE | LENGTH (SEC) | DAY | RELATIONSHIP STATUS | QUOTE | LOCATION |
|-------|-----------------|-----|------------------------|--|-----------------------------|
| 21 | 51 | 87 | 1 | "You know what? That looks pretty doable." | Home (Shower) |
| 22 | 161 | 95 | 1 | "This is my favorite spot." | Park |
| 23 | 188 | 109 | 1 | "I've never told anybody that before." "I guess I'm not just anybody." | Summer's Home |
| 24 | 145 | 118 | 1 | "What's going on here, with us? I don't know. Who cares? I'm happy. Aren't you happy?" | Football, Car |
| 25 | 252 | 259 | -1 | "You're serious? This guy?" | Pub, Summer's Home |
| 26 | 204 | 260 | 1 | "I need to know that you're not gonna wake up in the morning... and... feel differently. And I can't give you that. Nobody can." | Home |
| 27 | 63 | 266 | 1 | (Screams in the park) "Everyone's looking over here." "I'm done. I'm done." | Park |
| 28 | 46 | 191 | 1 | "It's very complex. In a way, it sort of, like, says... so much... by saying so little." | Art Gallery, Movie |
| 29 | 86 | 314 | -1 | "He is broken. More than broken, he is alone. Now his only friend is grief." | Movie |
| 30 | 129 | 321 | -1 | "Funerals and sympathy. Misery, sadness, loss offaith, no reason to live. This is perfect for you." | Office |
| 31 | 51 | 167 | 1 | "How about, "Every day you make me proud, but today you get a card."" | Office |
| 32 | 29 | 322 | -1 | "I hate Summer... And I hate her cockroach-shaped splotch on her neck." | Bus |
| 33 | 139 | 345 | -1 | "There's two options really. Either she's an evil, emotion- less, miserable human being, or she's a robot." | Restaurant, Pub |
| 34 | 360 | 402 | -1 | "Hi, Tom!" "Hey. Summer. I must have walked right by you." "Yeah." | Train, Millie's Marriage |
| 35 | 68 | x | x | | x |
| 36 | 197 | 408 | -1 | "Why make something disposable, like a building, when you can make something that lasts forever, like a greeting card?" | Summer's Home |
| 37 | 8 | 440 | -1 | | Home |
| 38 | 39 | 441 | -1 | (To a couple) "Get a room, really!" | Home, Grocery |
| 39 | 216 | 442 | -1 | "What does that even mean, "love"? Do you know? Do you? Anybody? If somebody gave me this card, Mr. Vance, I would eat it." | Office |

| SCENE | LENGTH (SEC) | DAY | RELATIONSHIP STATUS | QUOTE | LOCATION |
|-------|-----------------|-----|------------------------|---|-----------|
| 40 | 228 | 450 | -1 | “Look, I know you think that she was the one, but I don’t. Now, I think you’re just remembering the good stuff.” | Football |
| 41 | 109 | 456 | -1 | ♪ ‘Cause I’ll tell you everything ♪ ♪ About living free ♪ ♪ Yes, I can see you, girl ♪ ♪ Can you see me ♪ | Home |
| 42 | 32 | 476 | -1 | | |
| 43 | 346 | 488 | -1 | “I guess I should say congratulations.” “Only if you mean it.” “Ah. Well, in that case—” | X Park |
| 44 | 206 | 500 | 0 | “My name’s Tom.” “Nice to meet you. I’m Autumn.” | Interview |
| 45 | 9 | 530 | 1 | | |