Users

1) Tanis
- A 53 year old mom
- Has two children in University
- Enjoy's comedy and drama movies
- Is not very picky about looking into reviews before watching
- Likes to go to the movie theatre every other weekend with friends
- Watches Netflix occasionally, maybe twice a week
- Is not the most technical and prefers simple, easy to use interfaces that require minimal learning
- Likes recent films

2) Rocky
- A 52 year old dad
- Has one child in University
- Enjoy's science fiction and action movies
- Likes to watch movies with his family
- Likes to watch movies that friends have suggested to him
- Prefers to watch movies on Netflix on weekends
- Really loves Steven Spielberg movies

3) Daniel
- A 20 year old male University student
- Will make up any excuse as to why he hates each movie he watches
- Very picky about movies, but favours action over anything else
- Loves to vent online about why every movie sucks through online message boards
- Usually torrents movies that he likes if they aren't on Netflix
- Very tech savvy

4) Aurelié
- A 21 year old female exchange student from France
- Fluent in French and knows basic to intermediate English
- Loves contemporary, romance and any classic movie
- Has a few close friends that she likes to watch movies with
- Quiet, and does not usually voice her opinion on movies
- Does not have a Netflix account, so she usually rents movies on iTunes or goes to the theatre occasionally

5) Tresor
- An 18 year old male University student
- Watches Netflix frequently
- Prefers watching television series' opposed to movies most of the time
- Likes action movies
- Competent with technology but is indifferent on keeping up with latest trends

Subtasks / Interview Guideline

(Will be semi-structured including participatory observation)

- Inform users about the background of the application and the concept
- Encourage user to think aloud as they go through tasks and to mention any suggestions or thoughts
- Ask user to be relaxed and calm whilst conducting the tests
- Ask permission to observe actions
- Ask questions (allocating time for user feedback during tasks):

1) Use advanced search to search for movies directed by Steven Spielberg

2) Find the movie 'A Cinderella Story' with the movie search bar
3) Search for movies from 2000 or earlier
4) Search for movies above 3 stars
5) Rate a movie
6) Add a movie to watchlist
7) In movie window, return to viewing list of movies
8) View scatterplot representation of your watchlist
9) Search for movies available on netflix and iTunes
10) Delete any movie in the database

NOTE: Optimal order of each task:
1) type director’s name in director field > click confirm
2) search bar > type string containing movie title > locate movie in tableview
3) type 2000 in max year field > optional type 0 in min
4) click 3 star button in min rating
5) click on any movie (if not currently in view) > click amount of stars for review > (type optional review) > click submit
6) click on any movie (if not currently in view) > click on add to watchlist button
7) in movie view click on back
8) click on scatterplot button > click on watchlist button
or click on watchlist button > click on scatterplot button
9) click netflix field > click iTunes field
or click iTunes field > click netflix field
10) select tableview if not selected > select movie > click delete button
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Any questions or suggestions?
Overall how was your experience with the interface?
Are you okay with me using quotes from this interview for a user study?
Thank them for their time.

Variables / Analysis of Task

1) clicks per task
2) time
3) errors/feedback

Evaluation Techniques

- Semi-structured interview
- Participatory observation with permission

Interviews

Tanis:
Permission to observe: YES
Permission to quote: YES

1)
clicks: 5
time: 35 seconds
errors/feedback:
- accidentally mis-spelled his name causing confusion
- had to help user with spelling

2)
clicks: 1

time: 11 seconds
errors/feedback: note: slower typer, identified field quickly

3)
clicks: 2
time: 12 seconds
errors/feedback: extra click by adding 0 as min year

4)
clicks: 1
time: 4 seconds
errors/feedback: none

5)
clicks: 3
time: 11 seconds
errors/feedback: none

6)
clicks: 1
time: 5 seconds
errors/feedback: note: 1 click because already in movie view

7)
clicks: 1
time: 4 seconds
errors/feedback: note: was already in movie view

8)
clicks: 2
time: 14 seconds
errors/feedback: "took me a while to find the graph picture"
toggled watchlist then scatterplot

9)
clicks: 2
time: 8 seconds
errors/feedback: none

10)
clicks: 2
time: 7 seconds
errors/feedback: none

Tanis' Experience:
- It was easy to use and understand
- I like how there aren't too many buttons
- I liked how it didn't take me a lot of clicks to get where I want

Rocky:
Permission to observe: YES
Permission to quote: YES

1)
clicks: 2
time: 21 seconds
errors/feedback: had to figure out and process the advanced search before figuring out how to search by director (gulf of execution)

2)

clicks: 1
time: 6 seconds
errors/feedback: none

3)
clicks: 1
time: 4 seconds
errors/feedback: none

4)
clicks: 1
time: 2 seconds
errors/feedback: none

5)
clicks: 3
time: 9 seconds
errors/feedback: none

6)
clicks: 1
time: 4 seconds
errors/feedback: note: 1 click because already in movie view

7)
clicks: 1
time: 3 seconds
errors/feedback: note: was already in movie view

8)
clicks: 2
time: 9 seconds
errors/feedback: toggled scatterplot then watchlist

9)
clicks: 2
time: 6 seconds
errors/feedback: none

10)
clicks: 2
time: 6 seconds
errors/feedback: none

Rocky's Experience:
- "I would definitely use this all the time"
- I'm happy there is a feature to search for netflix
- I like that I can search for multiple genres at once
- Overall information is displayed well and simply for me to find
- Didn’t understand what the scatterplot would be used for

Daniel:
Permission to observe: YES
Permission to quote: YES

1)
clicks: 2
time: 7 seconds
errors/feedback: easily parsed the advanced search layout

2)
clicks: 1
time: 3 seconds
errors/feedback: note: fast typer

3)
clicks: 1
time: 3 seconds
errors/feedback: none

4)
clicks: 1
time: 2 second
errors/feedback: none

5)
clicks: 3
time: 6 seconds
errors/feedback: none

6)
clicks: 1
time: 2 seconds
errors/feedback: none

7)
clicks: 1
time: 1 second
errors/feedback: note: was already in movie view

8)
clicks: 2
time: 5 seconds
errors/feedback: toggled scatterplot then watchlist

9)
clicks: 2
time: 3 seconds
errors/feedback: none

10)
clicks: 2
time: 2 seconds
errors/feedback: none

Daniel's Experience:
- I really like the automatic query updates
- I like the wide range of search tools
- I like being able to tab to different search fields
- Fluid workflow
- Overall solid app

Aurelié:
Permission to observe: YES
Permission to quote: YES

1)
clicks: 2
time: 20 seconds
errors/feedback: needed help spelling Steven Spielberg

2)
clicks: 1
time: 15 seconds
errors/feedback: slower typer

3)
clicks: 2
time: 9 seconds
errors/feedback: extra click by adding 0 as min year

4)
clicks: 1
time: 4 seconds
errors/feedback: none

5)
clicks: 3
time: 8 seconds
errors/feedback: none

6)
clicks: 1
time: 4 seconds
errors/feedback: note: 1 click because already in movie view

7)
clicks: 1
time: 3 seconds
errors/feedback: note: was already in movie view

8)
clicks: 2
time: 10 seconds
errors/feedback: toggled watchlist then scatterplot

9)
clicks: 2
time: 6 seconds
errors/feedback: none

10)
clicks: 2
time: 8 seconds
errors/feedback: none

Aurelié's Experience:
- Easy to use even though my first language isn't English
- I like being able to search in a year range, because I like classics
- I like how I can see if a movie can be rented on iTunes
- It was easy for me to learn

Tresor:
Permission to observe: YES
Permission to quote: YES

1)
clicks: 2
time: 9 seconds
errors/feedback: none

2)
clicks: 1
time: 6 seconds
errors/feedback: medium speed typer

3)
clicks: 1
time: 5 seconds
errors/feedback: none

4)
clicks: 1
time: 3 seconds
errors/feedback: none

5)
clicks: 3
time: 9 seconds
errors/feedback: none

6)
clicks: 1
time: 4 seconds
errors/feedback: note: 1 click because already in movie view

7)
clicks: 1
time: 2 seconds
errors/feedback: note: was already in movie view

8)
clicks: 2
time: 6 seconds
errors/feedback: toggled watchlist then scatterplot

9)
clicks: 2
time: 4 seconds
errors/feedback: none

10)
clicks: 2
time: 4 seconds
errors/feedback: none

Tresor's Experience:
- I like being able to search for Netflix movies easily
- Simple and easy to find what I want to do
- I like being able to tab through fields
- Very easy to learn

Analysis

*NOTE: SEE DATA GRAPHS ON FINAL PAGE

- Our objective in our end user testing was to observe users' interaction with the most common subtasks in the app to ensure that the learning curve is very easy for them and simple to use

- Our vision was to create a system that is very easy in terms of navigation and very simple in terms of presented information. We have accomplished this by noticing the maximum amount of clicks (excluding one advanced search with multiple fields) took 5 clicks to complete a subtask with a unique group of users testing the application
- Graphing timed data and recognizing an average task completion time for all users to be 7.08seconds on first interaction with the application, demonstrates the simple learning curve
- To verify that our system is easy to use, when asked for feedback users expressed that it was enjoyable using the app
- One concern was the ability to find the graph button by one user which we changed the icon to be more apparent
- Additionally we verified through subtasks that our advanced searching method was easy for users, along with writing ratings/reviews on movies and adding to a watchlist quickly
- We found that observing users unobtrusively was the best representation of real-life use which we wanted to test
- At the core, our system is based on searching for movies and navigation, so we did not feel it was appropriate to categorize content analysis because the overall goal was to ensure fluid, easy, simple usage
- We focused on noting important dialogue as opposed to a whole transcript to focus on rich/useful feedback as opposed to a diluted cluster
- Overall great performance from a variety of users and overall general consistency

Experience

(a) What we learned
- We learned about interviewing users in a professional manner and getting valuable feedback to assess our application
- We learned that different users interact with environments differently depending on how tech-savvy they are (Ex. tabbing through fields versus clicking each field)
- We learned to be careful with questions such as search for movies directed by "Steven Spielberg" because not everyone knows how to spell names

(b) What we will do differently next time
- We will try to select tasks that are less dependent on spelling, although we did feel that Steven Spielberg was easy enough to spell for testing our directors advanced search field
- We will consider asking a mix with more open ended questions such as "find movie X" which would allow freedom for the user which can be useful by observing how they interact when multiple options are present. Therefore, we would get different valued feedback by learning perhaps that some users would search in the movie field, some may prefer advanced searching
- We are not sure if we would add a mix of open ended and direct questions though because our goal in this case was to compare user data and have consistency across users versus giving them many options and seeing how they acted
- Perhaps if our project was in more of an introductory exploratory stage we would ask more open ended questions to facilitate exploration, versus verifying our already suggested, designed and tested methods in our example

(c) How we can integrate user testing into future projects

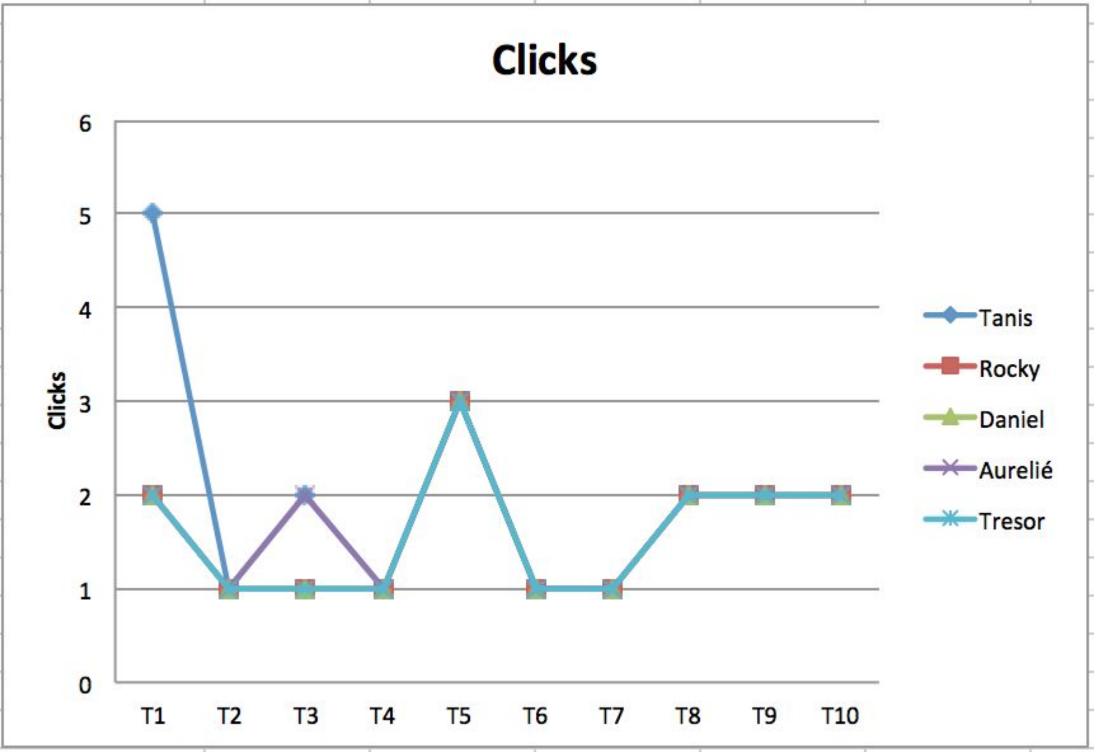
- User testing with work/coop projects can be useful for conducting interviews amongst peers for many different decisions such as usability and design feedback for example
- More so with future projects, user testing could be important for a software engineering project on a large system with complex tasks
- On larger systems whether in a work environment or a project, the larger and more complicated a design and layout is, the more important it is to create the best experience for users and much more important to evaluate the system on users with complicated tasks and subtasks
- If an issue arises with users in any case on larger projects, it is important to gather feedback and solve this issue so no other users will experience it in the future

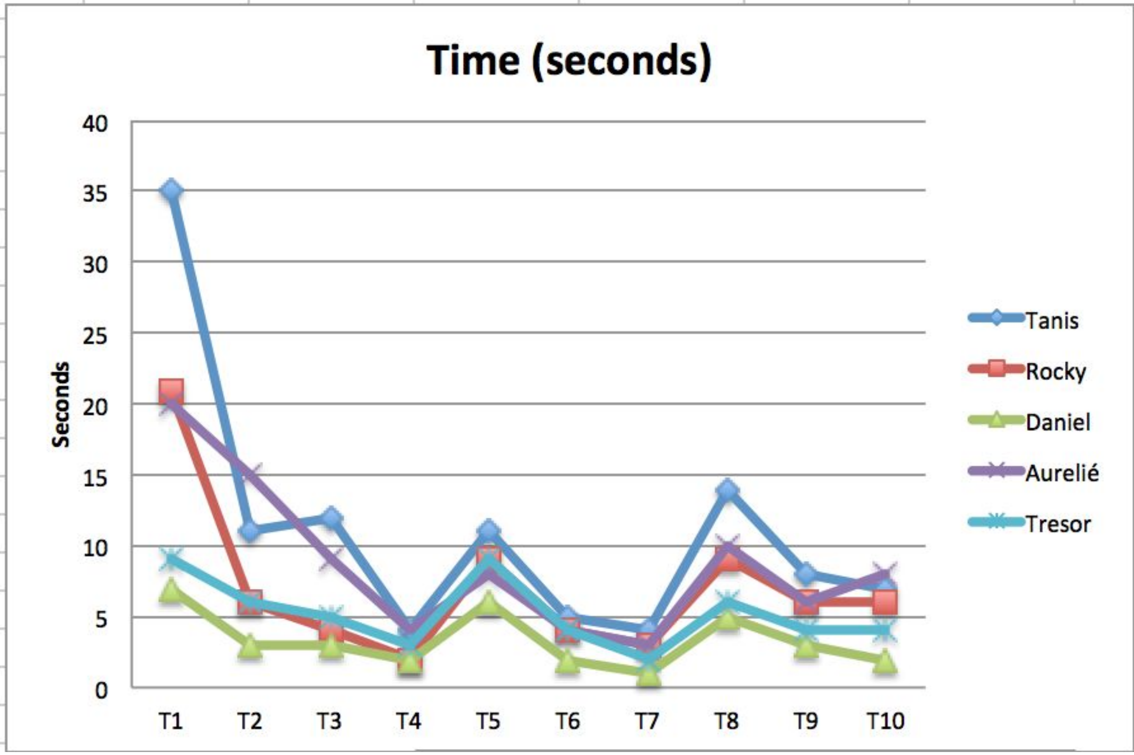
CLICKS

User	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Tanis	5	1	2	1	3	1	1	2	2	2
Rocky	2	1	1	1	3	1	1	2	2	2
Daniel	2	1	1	1	3	1	1	2	2	2
Aurelié	2	1	2	1	3	1	1	2	2	2
Tresor	2	1	1	1	3	1	1	2	2	2

Time (seconds)

User	T1	T2	T3	T4	T5	T6	T7	T8	T9	T10
Tanis	35	11	12	4	11	5	4	14	8	7
Rocky	21	6	4	2	9	4	3	9	6	6
Daniel	7	3	3	2	6	2	1	5	3	2
Aurelié	20	15	9	4	8	4	3	10	6	8
Tresor	9	6	5	3	9	4	2	6	4	4
AVG TIME	18.4	8.2	6.6	3	8.6	3.8	2.6	8.8	5.4	5.4
AVG TASK TIME	7.08									


Clicks
Clicks
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
Tanis
Rocky
Daniel
Aurelié
Tresor


Time (seconds)
Seconds
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
Tanis
Rocky
Daniel
Aurelié
Tresor