Link to Magpie: <https://magpie.solonsstuff.com>

Link to forms: <https://forms.office.com/e/X9V46Yf4ws>

Notes: Introduce Magpie as a GIS system!!!!

# Usability testing – Controlled (casual)

## User 1: D22125503 (Paul)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Task** | **Status** | **Time taken** | | **Difficulty** | **Errors** |
| Load Magpie application | ok | 20s | | 1 | NA |
| Sign up new account | ok | 42s | |  |  |
| Complete tutorial | ok | 60s | |  |  |
| Place cursor on any area and adjust radius to 250m | fail | Skipped | |  |  |
| Zoom in to road name level | ok | 5s | |  |  |
| Place cursor on another area | ok | 5s | |  |  |
| Zoom out to see the full radius | Fail |  | |  |  |
| Place cursor on another area | Fail |  | |  |  |
| Filter to view only parking meter data | fail | 120s | |  | Required our help |
| Filter to view no amenity data | fail |  | |  | Required our help |
| Filter to view 2 amenities of your choice | Fail |  | |  |  |
| Place cursor on another area and adjust radius to 100m | Ok | 10s | |  |  |
| Go through the tutorial and exit at step 3 | Fail | 30s | |  | Required our help |
| Logout | ok | 20s | |  |  |
| Survey responses | | | | | |
| Une image contenant texte, capture d’écran, Police, algèbre  Description générée automatiquement | | | Best thing about Magpie? Map display and amenities excellent | | |
| Worst thing about Magpie? No worse thing at all but make it a little more intuitive for users to filter amenities and make profile icon more visible | | |
| Changes to the dashboard? Make the choice of amenities more intuitive | | |
| Overall impression? Excellent app, I would find it very useful particularly for local areas of the city | | |

Additional notes on the experience:

Tries to select the map; click the marker everywhere; did not remember where onboarding was, more intuitive when clicking on the amenity (checkbox)

This was a failure, going in completely blind is not good, I even forgot to explain to him what the application does. Kaustubh suggests giving a scenario to those users so that they can put themselves in the shoes of the people we are targeting.

## User 2: C24329646 (Livia)

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| --- | --- | --- | --- | --- | --- |
| **Task** | **Status** | | **Time taken** | **Difficulty** | **Errors** |
| Load Magpie application | ok | | 5 |  |  |
| Sign up new account | ok | | 16 |  |  |
| Complete tutorial | ok | | 44 |  |  |
| Place cursor on any area and adjust radius to 250m |  | | 6 |  |  |
| Zoom in to road name level | ok | |  |  |  |
| Place cursor on another area |  | |  |  |  |
| Zoom out to see the full radius |  | |  |  |  |
| Place cursor on another area |  | |  |  |  |
| Filter to view only parking meter data |  | |  |  |  |
| Filter to view no amenity data | Ok | |  |  |  |
| Filter to view 2 amenities of your choice | Ok | |  |  |  |
| Place cursor on another area and adjust radius to 100m | Ok | |  |  |  |
| Go through the tutorial and exit at step 3 | Ok | |  |  |  |
| Logout | ok | |  |  |  |
| **Survey responses** | | | | | |
|  | | Best thing? Everything is great, really useful and brilliant idea of project | | | |
| Worst thing? Some steps of tutorial could be in steps/topics to facilitate reading for those with dyslexia | | | |
| Change about signup/login? Animations when clicking a button | | | |
| Overall impression? Interesting, unique, useful, practical, handy, convenient, amazing | | | |

Additional comments:

Tries to click on the highlighted items; “Looks sooo cool”; Different from google maps and apple maps, easier to see visually; “All the amenities are very cool”; “Maybe add Scooter stands, student hubs”; Overall very clear website.

So far, casual users tend to explore and not follow the tasks. For the next users, we will simply guide them in the beginning and then let them explore. A mix cognitive walkthrough and TAP.

## User 3: benjohnson (Ben)

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **General Task** | **Status** | **Time taken** | | **Difficulty** | **Errors/Notes** |
| Load Magpie application | ok |  | |  |  |
| Sign up new account | ok |  | |  |  |
| Log in | ok |  | |  |  |
| Go through tutorial | ok |  | |  |  |
| Place cursor on map | ok |  | |  |  |
| Zoom in/out | ok |  | |  |  |
| Hold map and navigate | ok |  | |  |  |
| Adjust radius big/small | ok |  | |  |  |
| Clear marker & radius | N/A |  | |  | unused |
| Deselect all amenities | ok |  | |  |  |
| Choose certain amenities | ok |  | |  |  |
| Find tutorial again & exit | n/A |  | |  | unused |
| Logout | ok |  | |  |  |
| **Survey responses** | | | | | |
|  | | | Best thing? Does exactly what it said it was going to do | | |
| Worst thing? Loading times | | |
| Change about signup/login? Maybe log in straightaway rather than redirect to log in page | | |
| Change about dashboard? Menu in top left has icons only suitable for macbooks, otherwise really good | | |
| Overall impression? very helpful app, incredibly easy to use, simple & effective | | |
| Additional comments? Wish there was a little bit more to the map, more info about icon; bus stops, etc | | |

Additional notes on the experience:

Wants to click on elements during onboarding, cool tool, more information on the amenities (tooltips).

My own notes: points seem to load a lot faster!!

## User 4: Jakub

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **General Task** | **Status** | **Time taken** | | **Difficulty** | **Errors/Notes** |
| Load Magpie application | Ok |  | |  |  |
| Sign up new account | Ok |  | |  |  |
| Log in | Ok |  | |  |  |
| Go through tutorial | Ok |  | |  |  |
| Place cursor on map | Ok |  | |  |  |
| Zoom in/out | Ok |  | |  |  |
| Hold map and navigate | Ok |  | |  |  |
| Adjust radius big/small | Ok |  | |  |  |
| Clear marker & radius | Pass |  | |  | Did not see the clear button at first |
| Deselect all amenities | Ok |  | |  |  |
| Choose certain amenities | Ok |  | |  |  |
| Find tutorial again & exit | Ok |  | |  |  |
| Logout | Ok |  | |  |  |
| **Survey responses** | | | | | |
|  | | | Best thing? Simplifies the search of amenities | | |
| Worst thing? Load times are a little choppy | | |
| Change about signup/log in? Account verification | | |
| Change about dashboard? Move/highlight the profile & tutorial icon | | |
| Overall impression? Good | | |
| Additional feedback? Remove pin by pressing on it again; add zoning information to parking icon. | | |

Additional notes on the experience:

No email verification email; should have one or at least email sent to show sign up successful. Tries to click on the map during onboarding; tries to click on the icons; add the zone type to the parking detail amenity; free parking tool information; is multi storey car parking information reliable? Same with public toilets, locations seem off; free public wifi (change name); water fountains very hard to find on the map when zoomed out (same with all amenities that have a small count) think of giving outline to the icons so they can stand out from the mapbox icons; search functionality; double click on map to deselect the marker and clear the map; hard to see the profile icon (make it stand out from the map); density meter (heat map, clusters to show where amenities are low/high) or export the information selected in a nice png (image easy to read and show); search functionality is missing; history seems useless for casual users but maybe not for professional users; didn’t actually look at the numbers on the dashboard;

# Usability testing – Field-test

## User 1: Brendan

|  |  |
| --- | --- |
| What do you use amenity data for in your professional life? | |
| For travelling around the world, consultancy | |
| How are you currently accessing this data? | |
| Google maps | |
| What issues have you run into accessing or using the data? | |
| Confusing; different information each time you go in (related to amenities), inconsistency in who the information is presented; inconsistency within the google products (maps, gmail, assistant) | |
| What is the data you are usually accessing? | |
| Locations, streetview, public transport, parking, site seeing, route-planing | |
| Based on the answers above, create a scenario and go through Magpie as you would your other tool to access the information you are looking for. | |
| He did not follow a scenario, he just explored every feature and looked in detail at specific functions like the marker, the icons, the radius, etc… | |
| Additional comments/feedback: | |
| Login/sign up: why is username required? Username should be email; What about two factor authentication? Need an IMAX server so for future work.  Misc: Why are we requesting location? For the marker data (maybe we should let the user know this is where they are on the map?); need a landing page to present magpie; is the version prototype logo useful? Maybe for dev; show more information and the ml images we worked on (personal preference); reiterates we should put the ml forward (maybe on the about us)  Onboarding: content of step 2, explain radius of what; the positioning of certain elements is off in Firefox; content wording change “dozen” for something else; step 5 should point to the map, investigate the bug.  Dashboard: button to clear the marker & radius from the map; leave the count of toggled off amenities; implement quick reset button for amenities; compress list of amenities; make it more obvious to scroll down the dashboard or compress everything to fit window-size (Firefox issue?)  Map: plus and minus to zoom in and out of the map; more information from the icons by clicking on them 🡪 marked up image that detects this space (google street view), information on the spot (private, free, carpark); make the selected icons more visually striking, a little hover maybe  Technical: when clicking on map, there is a slight offset between where the marker appears and where the user clicked; implement something to avoid mis-clicking and loosing original marker position; Icons move when you toggle on and off certain amenities  Overall: produce data-driven approach for the interface if that’s the kind of users we want | |
| Behaviour notes: | |
| Reached for the slider buttons for ease – good  Very tempted to click on the icons | |
| Survey responses | |
| Une image contenant texte, capture d’écran, Police  Description générée automatiquement | Best thing about Magpie? Has potential for use by certain types of users but more functionality is needed |
| Worst thing about Magpie? There was some lagging with refreshing or changing size radius |
| What would you change about sign-up? No username is needed |
| Overall impression of Magpie? Ok-ish, more data could be added, etc… |

## User 2: mairatsa (Maira)

|  |  |
| --- | --- |
| What do you use amenity data for in your professional life? | |
| Transportation, route planning | |
| How are you currently accessing this data? | |
| Google maps, TFI bus app | |
| What issues have you run into accessing or using the data? | |
| TFI app no route planning | |
| What is the data you are usually accessing? | |
| Bus stops, bus routes | |
| Based on the answers above, create a scenario and go through Magpie as you would your other tool to access the information you are looking for. | |
| Not applicable to Magpie, she just roamed around and tested the features. | |
| Additional comments/feedback: | |
| Misc: (not pointed by user) chrome onboarding elements overlap again  Amenities: interesting the drinking fountains, toilets, bins, toilet  Overall: app not maybe for her unless it was more handy  More features: share location, share info with someone socials; search bar with name of place specific  Likes: icon colours, very accessible (font size & colour, content placement), easy to go around, likes how it looks | |
| Behaviour notes: | |
| Laugh at the confetti; zoom-in-out no issue  Trying to interact with the dashboard to see the points before clicking on the map because her own location marker appeared  Like the icons and surprised to see public toilets | |
| Survey responses: | |
|  | Best thing about Magpie? Presentation of the information, it is very easy to understand how many things in each category you’ll find in that radius |
| Worst thing about Magpie? I am missing a search bar to look for specific location. Also, when I first started using the app I thought it would be automatic but I needed to click on the map so that information would appear. |
| What would you change about dashboard? One icon (bright blue) that is hard to see in the white background, the rest is very good |
| Overall impression? Very good, very interesting to gather all this information in one place |
| Additional feedback? I would add bus/tram stops, train stations and taxi ranks. |

## User 3: Damian

|  |
| --- |
| What do you use amenity data for in your professional life? |
| When teaching AI, using datasets from Kaggle  Worked on projects in past using geographical data, involved in EIRCODE  Sligo college when building  Placement of bins involved with Dublin on where to put them |
| How are you currently accessing this data? |
| Kaggle, mapbox |
| What issues have you run into accessing or using the data? |
| Issues with gis data: heterogenous and homogeneity  Coordinate system  American data: quality dependent on state |
| What is the data you are usually accessing? |
|  |
| Based on the answers above, create a scenario and go through Magpie as you would your other tool to access the information you are looking for. |
|  |
| Additional comments/feedback: |
|  |
| Behavior notes: |
|  |

Scenario: You are an architect contracted by Dublin City Council to expand the Dominick Street Recreation Centre, located on Dominick Street Lower, Dublin 1. As part of your assignment, you need to plan the expansion in a way that integrates effectively with the surrounding community and existing amenities.

Your tasks are as follows:

* **Locate the Community Centre:** Use the GIS application to locate the Dominick Street Recreation Centre on the map.
* **Identify Nearby Amenities:** identify the public amenities you think are relevant within a 500-meter radius of the recreation centre. These can include but are not limited to:
  + Bicycle stands
  + Parking spaces
  + Public Wi-Fi spots
  + Public toilets
* **Analyze Amenity Density:** Based on your findings, determine which types of amenities are abundant and which are lacking around the centre.
* **Plan for Additional Amenities:** Suggest which new amenities should be added as part of the recreation centre's expansion to better serve the community. For example:
  + If parking is insufficient, recommend additional parking spaces.
  + If there are no public toilets nearby, consider including them in your plans.
* **Assess Accessibility:** Check how accessible the recreation centre is by identifying nearby transportation options. Note any gaps in accessibility that might need addressing.
* **Provide Feedback on the Application:** As you work through the tasks, note how easy or difficult it is to locate and analyse the required information. Suggest any features or improvements that could make the GIS application more user-friendly or efficient.

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| --- | --- | --- | --- | --- | --- |
| **General Task** | **Status** | **Time taken** | | **Difficulty** | **Errors** |
| Load Magpie application | ok |  | |  |  |
| Sign up new account | ok |  | |  |  |
| Log in | ok |  | |  |  |
| Go through tutorial | ok |  | |  | Onboarding looks broken |
| Place cursor on map | ok |  | |  |  |
| Zoom in/out | pass |  | |  | Needed help |
| Hold map and navigate | Ok |  | |  |  |
| Adjust radius big/small | Ok |  | |  |  |
| Clear marker & radius | N/A |  | |  | Not used |
| Deselect all amenities | Ok |  | |  |  |
| Choose certain amenities | Ok |  | |  |  |
| Find tutorial again & exit | fail |  | |  |  |
| Logout | pass |  | |  | Not seen |
| **Survey responses** | | | | | |
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Additional notes on the experience:

Missing search bar for the scenario; better wording on the zoom in and out (mouse wheel, two-finger scroll on mousepad); missing zoom in and out buttons; extra amenities likes hospital, fire station, garda station locations, map overlays for sewage system, watergrid, electrical grid, tunnels; maybe legend of the mapbox colors? see height of buildings?

### User 4: Bryan

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| --- |
| What do you use amenity data for in your professional life? |
| School geography, construction, facilities around those facilities  Child development and technology |
| How are you currently accessing this data? |
| Data gov |
| What issues have you run into accessing or using the data? |
| No issue with data gov specifically, but issues encountered when trying to access/use data that is not openly available (regards to PHD research he is conducting) |
| What is the data you are usually accessing? |
| Proximal to school locations  School geography |
| Additional comments/feedback: |
| Job: Professor clinical sciences  Came across our survey on Linkedin (maybe, doesn’t remember)  On topic of Magpie, he was reminded of a European project to develop a series of routing algorithms for people with mobility issues in urban environments; that was his first encounter with amenity-based data. Project looked at creating a service accessible for blind users, mental deficiency, route planning for wheelchair users. They would use IP gateway to broadcast amenity information (location based).  Use browser Edge |
| Behaviour notes: |
| Sped through onboarding; Explored the amenities on his own; Explored the landing page but avoided clicking on anything; Did not full screen the edge tab; unclear that he has to click the map to get the amenities to show up; not interested in parking, mainly looked at accessibility amenities |
| Vocal feedback: |
| Add public transportation stops; search bar more intuitive and quicker to use than placing marker on the map; general impression of magpie is that its nice, simple, very straightforward; in his professional perspective he would use it on desktop/laptop so it’s fine; what he’s more looking for is the type and quality of amenity surrounding location he is searching (specific to his current project) and Magpie does half of that.  He is lowkey interested and is looking forward to seeing the finished product. |
| Technical notes: |
| “Show” overlaps “eye” during signup; amenity icons peek through the search bar; |

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| --- | --- | --- | --- | --- | --- |
| **General Task** | **Status** | **Time taken** | | **Difficulty** | **Errors** |
| Load Magpie application | Ok |  | |  |  |
| Sign up new account | Ok |  | |  |  |
| Log in | Ok |  | |  |  |
| Go through tutorial | Ok |  | |  |  |
| Place cursor on map | Pass |  | |  | Had to tell him how-to |
| Zoom in/out | Fail |  | |  | Had to tell him how-to + took some time |
| Hold map and navigate | Ok |  | |  |  |
| Adjust radius big/small | Ok |  | |  |  |
| Use search bar | Ok |  | |  |  |
| Clear marker & radius | Ok |  | |  |  |
| Deselect all amenities | Ok |  | |  |  |
| Choose certain amenities | Ok |  | |  |  |
| Find tutorial again & exit | Ok |  | |  |  |
| Logout | Ok |  | |  |  |
| **Survey responses** | | | | | |
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### User 5: Sarah

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| --- |
| Your job/work experience? |
| Urban design; Urban planning; Transport planning |
| What do you use amenity data for in your professional life? |
| Plan new area = understand new existing area (brand field=previous industrial to transform into residential or commercial).  Transport & option planning = research what’s available along a proposed bus route; choose options for a bus route by looking at amenities & residential population. |
| How are you currently accessing this data? |
| My plan.ie = Land use zoning in Ireland  Local development plans = online  Mostly searching along the routes = very manual process  Bus route planning = look at two council datasets = open street map, google maps  Go on the ground have a look |
| What issues have you run into accessing or using the data? |
| Little information what really is the level of amenities  Shooting in the dark; What’s the quantum of what you’re dealing with  How at capacity these amenities are |
| What is the data you are usually accessing? |
| Bus route, schools, zoning information, public spaces, public transport |
| Additional comments/feedback: |
| Planning terms = amenities mean park, any sort of public facility that you can use, beach, cycle infrastructure, bins would never come up in her world as amenity, but you can see how it could be useful.  Amenity to her = public bench, street furniture this type of information very interesting from a research perspective. |
| Behaviour notes: |
| Tries to click on display during onboarding  Easily dragged along the map |
| Vocal feedback: |
| Bike sharing station = number of bikes, the current number not explicit; type of bike sharing station.  This is fascinating in its own right; Really useful project; Radius and count very useful ; Certain amenity values change depending on what you are planning; Function for planning and research not so much casual user.  Car parking has lots of potential because it relates to the use of public space for car parking, that information is really needed and Magpie displays it in an easy manner  Parking data = public space is very contested, limited, how we use that space is a really big issue in public and urban planning, how much we are giving this public space to parking, inefficiencies using public space for parking especially with limited land.  Amenity per population, spatial distribution = calculate using census of local authorities; Public bins = social equity/equality  Very hard to understand the map when you are very zoomed in, she need aerial, would want to see how the street looks like (particularly around car parking); History function “sure” useful; Want to be able to extract map that shows (scale bar) show what the distances are on the image |
| Technical notes: |
| Show overlaps on eye during sign up ; Using edge |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **General Task** | **Status** | **Time taken** | | **Difficulty** | **Errors** |
| Load Magpie application | Ok |  | |  |  |
| Sign up new account | Pass |  | |  | Tried to sign up on log in page |
| Log in | Ok |  | |  |  |
| Go through tutorial | Pass |  | |  |  |
| Place cursor on map | Ok |  | |  |  |
| Zoom in/out | Ok |  | |  |  |
| Hold map and navigate | Ok |  | |  |  |
| Adjust radius big/small | Ok |  | |  |  |
| Use search bar | Ok |  | |  |  |
| Clear marker & radius | NA |  | |  |  |
| Deselect all amenities | NA |  | |  |  |
| Choose certain amenities | Ok |  | |  |  |
| Find tutorial again & exit | NA |  | |  |  |
| Logout | NA |  | |  |  |
| **Survey responses** | | | | | |
|  | | | Best thing? Very useful to have data in one location in easy to view | | |
| Worst thing? Car parking symbols are a bit overwhelming and confusing | | |
| Change about dashboard? I would like aerial (satellite) view, extra data like benches, EV charging stations, public transport stops, other amenities similar to libraries like public pools | | |
| Overall impression? A lot of potential to be a very useful public service for planning and research in particular. It would just need to make sure there is clarity over what is defined as a public amenity | | |

### User 6: Odrian

|  |
| --- |
| Your job/work experience? |
| Chair of Msc spatial (town) planning  Qualified as planner; Background in economics and local development  Specialized in consulting, community engagement, retail planning, socio economic |
| What do you use amenity data for in your professional life? |
| Development maps = on the ground  What is vacant, planning applications (physical)  Councils  Visual on the ground  Rural planning =  Economics  Socio economic analysis of an area using datasets and policy |
| How are you currently accessing this data? |
| On the ground; city councils; publicly available datasets |
| What issues have you run into accessing or using the data? |
| Data not publicly available or doesn’t exist; |
| What is the data you are usually accessing? |
| Socio-economic data; |
| Additional comments/feedback: |
| Nice and useful  Really interesting to turn things on and off |
| Behaviour notes: |
| Has expressed they are not very good with technology  Seems to know how to navigate map though |
| Vocal feedback: |
| Amend label to public library, free public wifi, car parking  Coach parking dataset seems are incomplete  Differentiate from Dublin bike and other bike sharing systems  Public toilets removed years ago due to attacks  Need to add schools  Draw your own radius  Add 300m = for retail, 300m is considered walkable and stops people using cars  See things quickly and instantly  Dublin smart city  Wants a bit of google map level of detail for locations  Live data?  Vacant site register add to map  User friendly to me, which is a good start  New infrstracture (new luas line) = overlay  Go through planning applications and see what people look for  Cache materia  Get populalation  15 minute rule = be able to cycle/walk to anything in 15 mins; magpie would be a good to test that  POBAL = interactive mapping for certain things  Really lovely project!!! So many datasets we can put in |
| Technical notes: |
| Show overlaps on eye during sign up; Using edge |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **General Task** | **Status** | **Time taken** | | **Difficulty** | **Errors** |
| Load Magpie application | Ok |  | |  |  |
| Sign up new account | Ok |  | |  |  |
| Log in | Ok |  | |  |  |
| Go through tutorial | Ok |  | |  |  |
| Place cursor on map | Ok |  | |  |  |
| Zoom in/out | Ok |  | |  |  |
| Hold map and navigate | Ok |  | |  |  |
| Adjust radius big/small | Pass |  | |  | Did not notice |
| Use search bar | Ok |  | |  |  |
| Clear marker & radius | Ok |  | |  |  |
| Deselect all amenities | NA |  | |  |  |
| Choose certain amenities | Pass |  | |  | Asked how to do it |
| Find tutorial again & exit | NA |  | |  |  |
| Logout | NA |  | |  |  |
| **Survey responses** | | | | | |
|  | | | Best thing?  User friendly, dashboard is easy to use & simple | | |
| Worst thing? Limited amount of data available, but they can be added overtime | | |
| Overall impression? Excitement | | |
| Additional feedback:  Potential to be commercially viable, it would need a lot more datasets, but it can be very useful for individuals, communities, planners and students | | |