

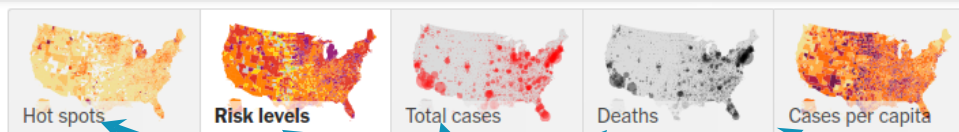


*Versatile*UX
for the
New York Times Covid Tracker Portal

Introducing a New Desktop App to Improve User Experience

Risk levels

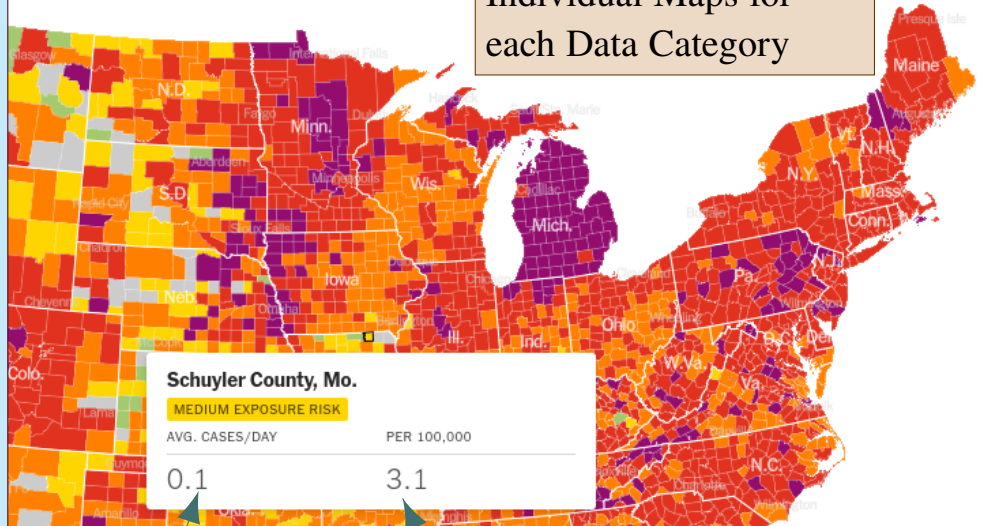
LOW MEDIUM HIGH VERY HIGH EXTREMELY HIGH



Benefits of Using a Desktop App:

- Allows seamless switching between maps while staying on the same county: *so that the user does not need to first scroll up to the map thumbnails and then click on the new map while facing the challenge of having to hover the mouse on the new map to find the county all over again.*
- Permits merging of data from two or more maps into one single dialog box specific to the county which is at the center of the search: *so that the user does not need to remember data they collected on prior maps.*
- Enables one to “save” counties being viewed so the app can automatically restore the dialog boxes and present updated information on restart: *so that the user does not have to repeat steps to select counties whose data they need to check regularly.*
- Permits one to view data from multiple counties in dialog boxes side-by-side: *so that the user does not lose the display of one county’s data when they need to view a different county, which can be critical for comparing one county with another.*

Individual Maps for
each Data Category



Data Points

◆ Whereas the New York Times “Covid in the U.S.” web page presents much information (<https://www.nytimes.com/interactive/2021/us/covid-cases.html>), a desktop application could present this same amount of information but more conveniently and efficiently for the end user, which may be a news reporter, a policy-maker, a researcher or a lay reader. That is, by using a desktop/native application, rather than one that is web-based, one can avail oneself of more sophisticated programming techniques, yielding a much richer and more versatile User Experience. Given that the New York Times Covid tracker furnishes more than 10 data points for each and every county in the United States (e.g. values such as average new cases per day, total cases as a share of the population, total deaths, and 14-day trends for new diagnoses) this is naturally a heavily trafficked site where user interactions with the site are manifold. Therefore it is important for user experience to be optimal because of the number of users and the frequency of their use of this site.

◆ Users can access county-specific data by selecting a US or state map and then hovering the mouse over each county in turn. This causes a rectangular box to pop up with one or two lines of data. However, in order to prevent this box from being too large, the NYT divides the dataset into five different categories — Hot Spots, Risk Levels, Total Cases, Deaths, and Cases per Capita — providing five different kinds of national maps and state maps based on this classification. Thus, every county-specific box includes information that is linked only to the category of the map the user is viewing at that given time. As a result, the user can only view the full range of county information by switching between five different national maps or the five different maps for each state. This can make it hard for the user to remember the values of the prior map(s) when they are already viewing the next map(s).

◆ A desktop app, in contrast to a web-based front end, would *de facto* condense the five separate maps into one single map so that the user wouldn’t have to navigate back-and-forth between maps, which can prove cumbersome for the following reasons: First, the user is burdened with having to recall the data values on each prior map, respectively, when they are already onto the next map; and second, the user must contend with the tedium and frustration of having to hover the mouse closely and steadily enough to locate the county each time they need to find the data on the new map. This is so because the counties are not always visible on the map (especially in densely populated states and in areas where there has been such an uptake in activity that the data visualization prompts, such as red circles, become so numerous that they overshadow the geographic regions on the map) and only appear when hovering the mouse over just the right spot. In fact, if the mouse is moved a millimeter to the left or a fraction of a millimeter to the right one misses the county entirely. In essence, the user must hover the mouse over the state many times in order to identify the selected county, a process which can be tiring and burdensome.



While this must be done for the selection of the county on the first map, our native/desktop front end would allow the application to remember the exact placement of the county on the map so that when the user “switches”¹ maps in order to find another category (such as switching from the Hot spots map to the Cases per capita map) the user would be spared from having to maneuver the mouse to find the county all over again.

◆ **VersatileUX** transforms this tedium into a smooth and efficient process. Each county would have data coordinates that pair it with a context menu that would allow users — instead of scrolling up to the top of the page to select a new map category — with a simple right click of the mouse to select new the category of data (e.g. Hot spots) that is relevant to the county at hand. They would repeat the same action when moving on to the next category of data (e.g. Risk levels) relevant to that same county.² Each time they would move to the next map category the coordinates on the desktop app would know exactly where the county is located on the map so that the user would be spared from having to maneuver the mouse to be able to find the county all over again. By using a desktop app, the portal would be able to easily register the user’s actions, such as the county the user had selected on the prior map.³

Using native/desktop front ends in lieu of the conventional web-based front ends helps a portal to adjust to the fluidity of data tracking: as pandemics pick of speed it is common for the data visualization prompts to overtake the graphic display of geographic regions. Versatile UX responds to this anticipated fluidity by intentionally using native/desktop programing features that transcend the obfuscation of maps that naturally occur as a result of exponentially emerging data endemic to a major health crisis.

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¹While it appears to be “switching” of maps, it is actually not a “switch” between maps because the desktop app enables all five maps to occupy one space. However, the color patterns and data-visualization schemes (such as the use of varying solid colors per county or varying-sized colored circles depicting each county by its activity level) would be modified as users switch categories, so as to mimic the appearance of the five category-specific maps on the NYT portal.

²With the option of selecting all five map categories at one time, wherein the data values for all five maps would appear in a dialog box. Because this box is not fixed and rigid (in contrast to standard web-based applications) the box can be easily moved around the screen so as to fit alongside other dialog boxes capturing the data values from other counties. In this way, the user can compare the data values between counties without having to leave the screen showing the present county in order to access the data values of another county, as would be the case with the conventional web-based dashboards.

³In keeping with VersatileUX, another feature that would make a desktop app more convenient than the current web-based application is that the national and state maps could be viewed side-by-side, rather than users having to choose whether they prefer a map on the national scale or a zoomed-in individual-state scale instead.

