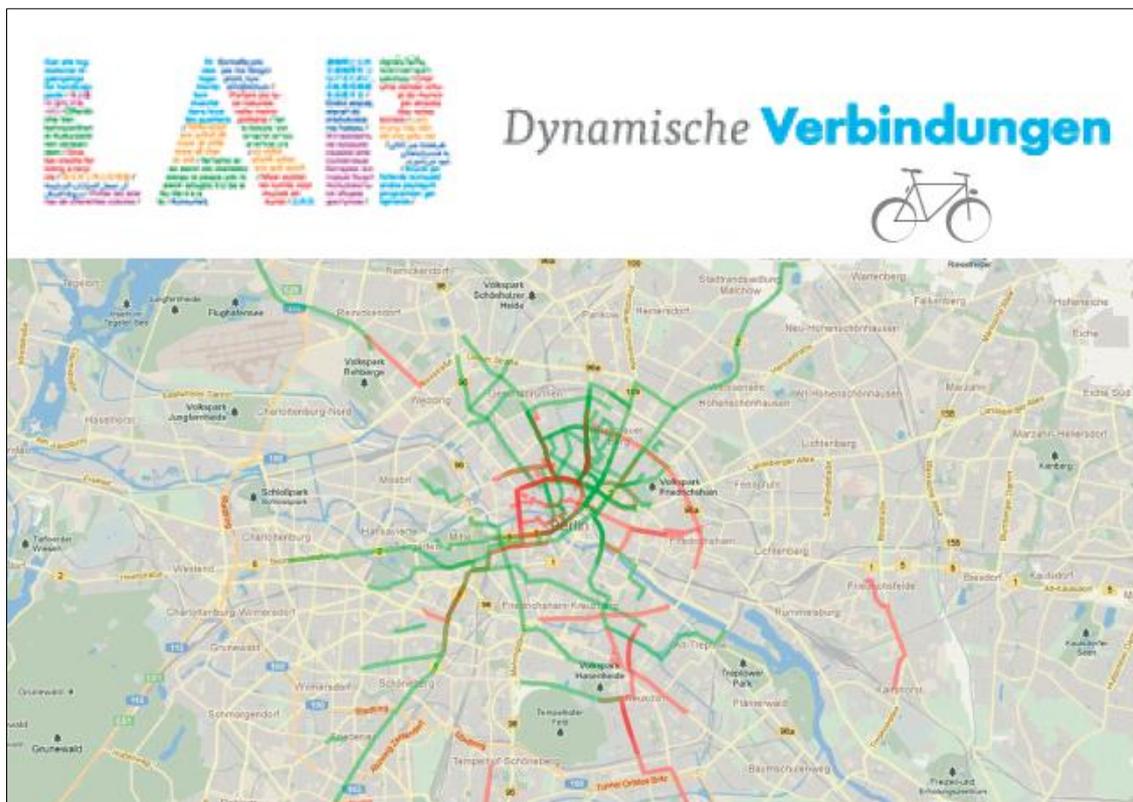


Results and Findings



December 2012

Background

In 2011 BMW Guggenheim Lab team member Rachel Smith conducted a bicycle route options analysis in Australia. Rachel's client thought the number of options would be limited and Rachel agreed that the topography, traffic volumes and intersections were not perceived as the most amenable for people on bicycles, especially for less-confident riders. Rachel's team, fearless, enthusiastic, and novice bicycle riders, set out and cycled every street in the study area. They colour-coded each street based on their cycling experience and using five assessment criteria they discovered that there many more options than everyone had first anticipated. The client was thrilled with their tactical experimentation, but unfortunately their 'paper' colour coded map had limited usage.

When Rachel was asked to produce an "Out in the City" project in Berlin for the BMW Guggenheim Lab she leapt at the opportunity to experiment with maps.

"This project excites me because people, everyone and anyone - not just engineers, are auditing existing bike networks. They are assessing existing streets that don't have facilities, and effectively creating a map - as a community - of which streets are safest for bicycling and developing the capital works programs for councils and governments by identifying which streets and intersections are the most unsafe and stressful to use"

Rachel Smith, BMW Guggenheim Lab, Berlin lab team member

Pilot project

The Dynamic Connections Map is a world-first experiment to crowd-sourced (process that involves outsourcing tasks to a distributed group of people) and crowd-solving (large number of people solving problems) cycling using an interactive map. While traditional mapping efforts show current conditions and what type of bicycle infrastructure is located on given roads, the Dynamic Connections Map allows confident, regular and potential bicycle riders to assess the current biking network, rate streets on how cycle friendly they are and, as a result of data processing, unlock a potential future cycle network.

Results

Firstly and most importantly, we would like to thank the 5211 individuals who participated in this project.

We asked you "What type of bicyclist are you?"

75% of respondents said they were very confident bicycle rider who were experienced riding on the road with traffic

17% said they regularly ride a bicycle but only on bike paths

8% said they were interested in riding a bicycle. They said they would like to ride a bike but were concerned about safety and traffic

Question 1 - We asked to select a road/street where you regular ride your bicycle

Participants are asked to select a road or street by clicking on a Google-based map provided. The information collected is processed using an algorithm that designates each street to be either bicycle-friendly (green) or unfriendly (red). Participants, planners, policy makers and people simply interested in cycling can filter the data to meet their own personal needs, for example streets with safe intersections.

Hundreds of streets were selected, assessed and rated. We will continue analysing the results for each road/street in 2013. The results for Invalidenstrasse and Freidrichstrasse are provided below.

Question 2 - Do you think the traffic volumes, vehicle speeds, number of parked cars, visibility at intersections and topography on this road/street (the one selected) are 'bicycle friendly'?

Overall, 52% of you said 'Yes' and 48% said 'No'

"Perhaps their most glaring shortcoming of all bike maps is that they also fail to recognise that even if the 'official' routes are the best option (which they often aren't), every now and then we need to leave the official network of cycling infrastructure in order to get to the places we need to go. We don't just need information about bike routes. We need information about every route".

Christine McLaren the BMW Guggenheim Lab blogger

Question 3 - Does cycling on this road/street (the one selected) provide you with good access to a large number of destinations, for example, shops, cafes, school and workplace?

Overall, 70% of roads/streets were rated 'Yes' and 30% 'No'

Question 4 - When you stop at or cycle through intersections on this road/street (the one selected) do you feel?

Overall, 38% selected 'Safe', 38% selected "Neutral" and 24% selected 'Unsafe'

Question 4 - Generally when you ride a bicycle on this road/street (the one selected) do you feel?

Overall, 38% of you said 'Happy, 36% selected 'Stressed' and 26% of you feel 'Neutral'

Invalidenstrasse

- 89% of people who cycle on Invalidenstrasse are confident riders
- 68% say the road provides good access to destinations
- Only 11% of bicycle riders feel safe cycling on Invalidenstrasse
- Invalidenstrasse makes 68% of bicycle riders feel 'stressed'

Freidrichstrasse

- 77% of people who cycle on Freidrichstrasse are confident riders
- 88% say the road provides good access to destinations
- Only 19% of bicycle riders feel safe cycling on Freidrichstrasse
- Freidrichstrasse makes 55% of bicycle riders feel 'stressed'



What next?

Rachel and John Schimmel would like to refine the early exploratory phases of the Dynamic Connections Bike Map by:

- Tweaking some of the questions
- Adding crash, cycle count, traffic volumes and air quality data/statistics
- Including demographic data
- Incorporating an additional comments and feedback form
- Creating a geospatial discussion forum

Rachel and John aim to open the map to be used in any city or town in any part of the world by mid-2013.

If you would like to sponsor the map in your city, or be a global sponsor, please email Rachel

Contact details

For more information please contact Rachel Smith rachel@cyclingschimmel.com

Websites and Social Media

<http://www.dynamicconnections.de/>

<http://www.bmwguggenheimlab.org/berlin-lab-city-projects/237>

<http://www.facebook.com/DynamicConnectionsBikeMap?ref=h>

The Dynamic Connections Map was created as part of the BMW Guggenheim Lab by Lab Team member Rachel Smith in collaboration with John Schimmel, an Adjunct Professor at NYU and designer/developer of technology for people with disabilities, and Dave Dawson, a graphic and digital designer.

