

New Mobility Systems



Vijay Gurbaxani

Founding Director, Center for Digital Transformation

Taco Bell Professor of Information Systems and Computer Science

World Materials Forum 2016

Nancy, France

June 9-10, 2016

UCIRVINE

THE PAUL MERAGE
SCHOOL OF BUSINESS

CENTER FOR DIGITAL
TRANSFORMATION



Multi-modal Transportation Systems



The Future Isn't What It Used To Be





But It's Already Here: New Model For An Old Business

UBER FEBRUARY 20, 2015

Rs118.50 Thanks for choosing Uber, Vijay

Uber MUM Price Cut

FARE BREAKDOWN

Base Fare	50.00
Distance	78.01
Time	30.68
Subtotal	Rs158.69
Rounding Down	-0.69
Promotion	-39.50
CHARGED	Rs118.50

Personal **** 1005

Visit the trip page for more information, including invoices (where available)

04:19pm
26, Shand Bhagat Singh Marg, Cuffe Parade, Mumbai, Maharashtra 400005, India

04:50pm
245, Mahatma Gandhi Road, New Marine Lines, Marine Lines, Mumbai, Maharashtra 400020, India

CAR: uberX | KILOMETERS: 5.20 | TRIP TIME: 00:30:41

You rode with Ashish
Rate your driver: ★★★★★

Uber Support: Contact us with questions about your trip. Leave something behind? Track it down.

Give \$20, Get \$20: Share code: puw6o

Fares are inclusive of service tax and all other taxes applicable. Service tax and all applicable taxes are the responsibility of the transportation service provider.

Fare does not include fees that may be charged by your bank. Please contact your bank directly for inquiries.

Messages Calendar Photos Camera

Weather Clock Maps Videos

Bluesmart Says:
Welcome to New York!
You and your Bluesmart landed safely! Would you like us to order an Uber for you?

No, thanks Ok

Health Passbook Settings

Recover

We will send an Uber to pick up your bags from the airport.

Recover my bags

55 COUNTRIES

AVAILABLE LOCALLY, EXPANDING GLOBALLY

FIND YOUR CITY

Investing \$1B in China's Didi Chuxing



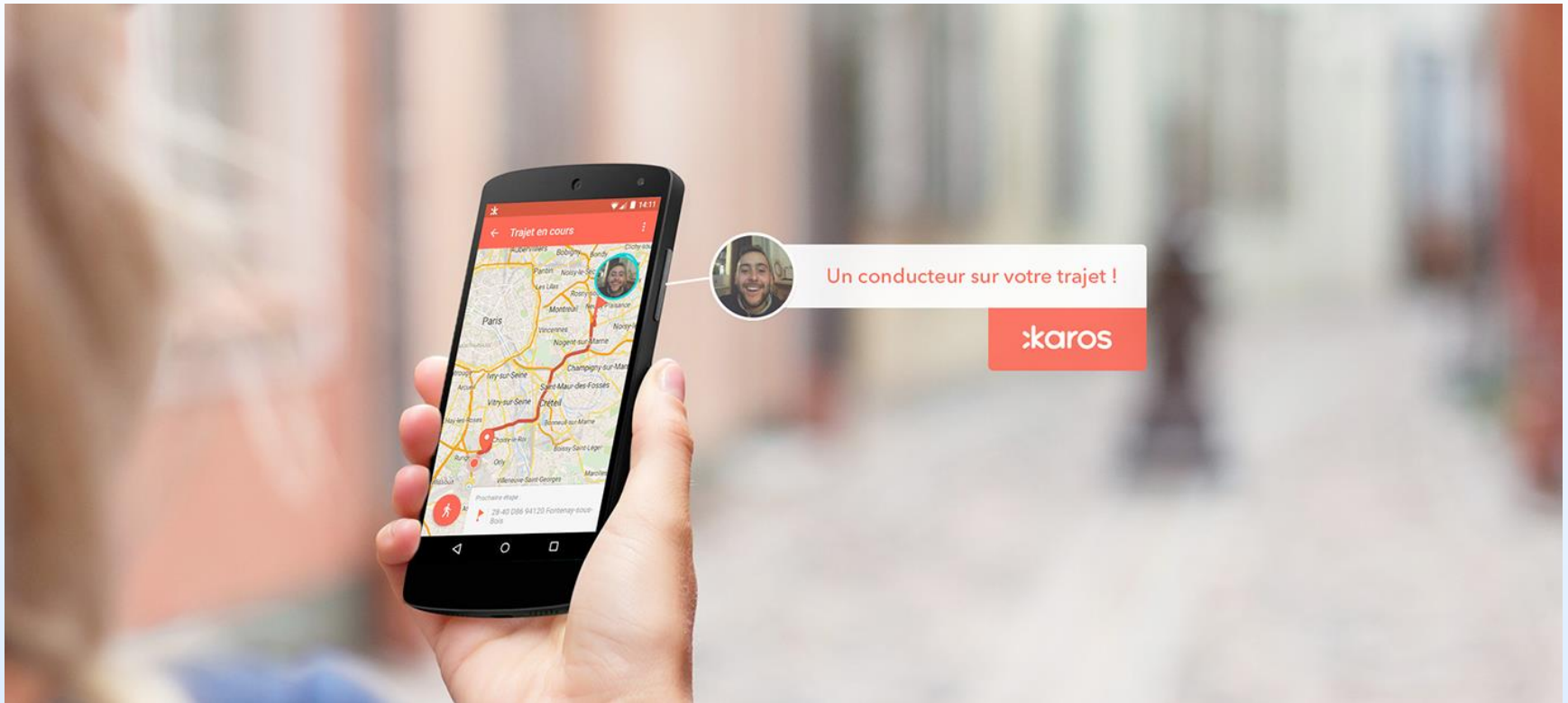
Peugeot: Push to Pass



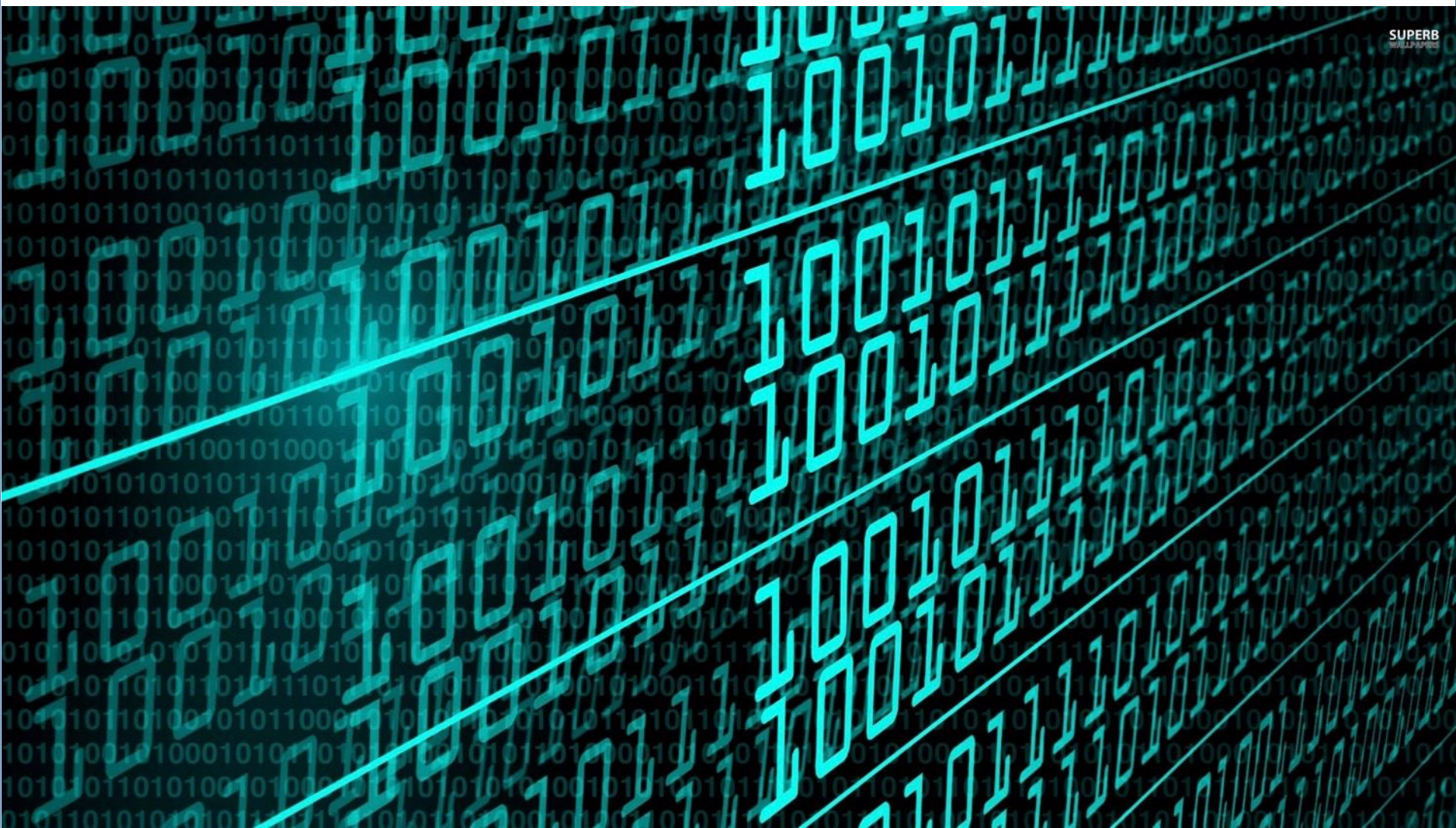
Europcar: Flexible Options



Karos: Carpooling



We're All Competing On A Software Playing Field



UCIRVINE

THE PAUL MERAGE
SCHOOL OF BUSINESS

CENTER FOR DIGITAL
TRANSFORMATION



A Software Economy Is Capital Efficient



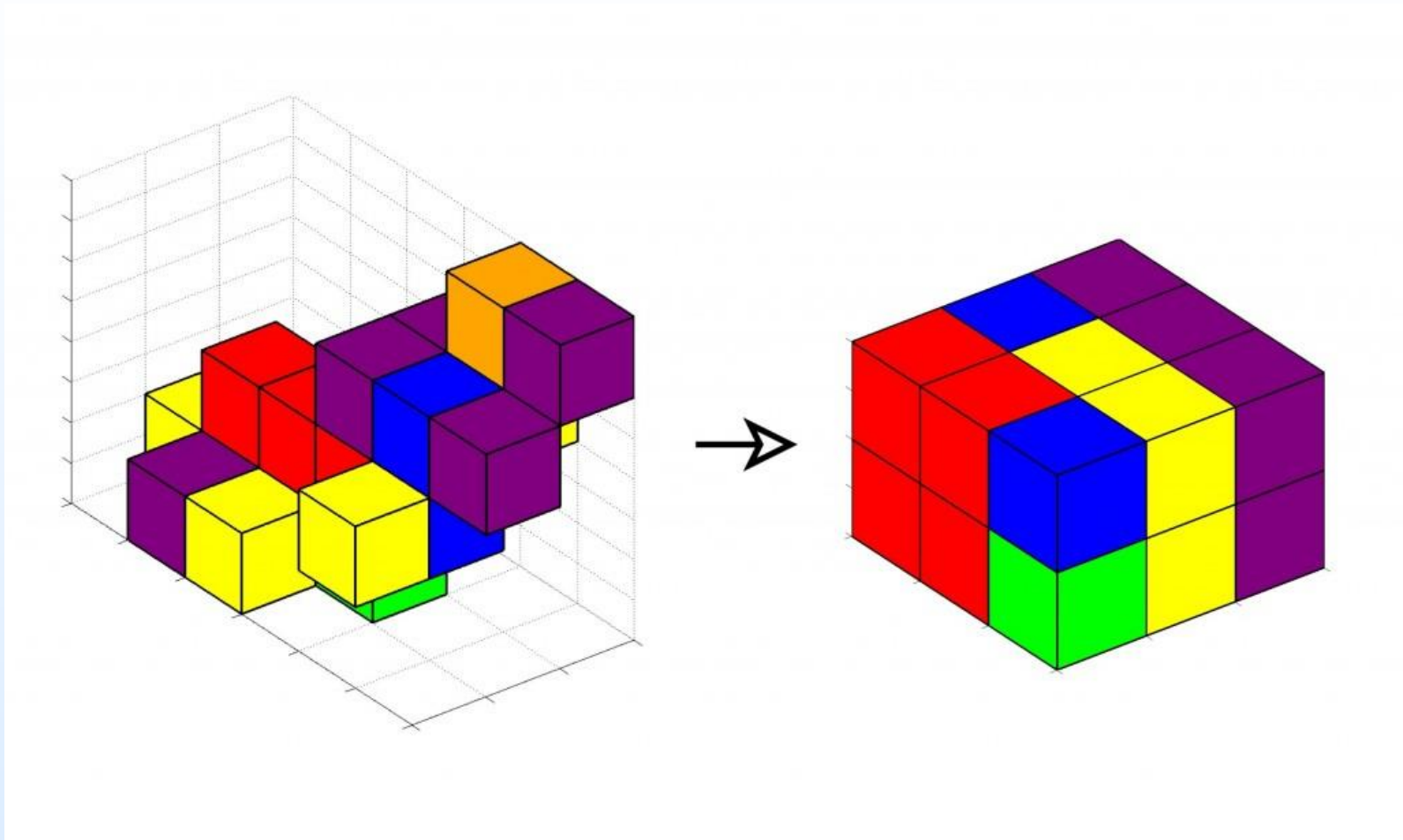
In The Multi-Modal Future, Everything Will Be Connected



Value Creation: Reconfiguring Assets And Resources

- Value-creation process amounts to using “recipes” for rearranging things
- Put them in more valuable configurations than older ones
- In a connected world, reconfiguring assets is easier to do

The Goal: System-wide Efficiency



Solution Design Will Vary



A Connected Multimodal World Will Lead To..

- Improved asset efficiency
 - New ownership models
 - Fewer cars sold
 - Lower demand for highway expansion
 - Less parking
 - Higher demand for efficient assets (buses and trains); lower demand for less efficient assets
- In total, should lead to significantly lower demand for and shift in materials used