So delicately interwoven are the relationships that when we disturb one thread of the community fabric we alter it all.
> 2025
FULLY AUTOMATED
- Monitoring of the system not required
- Driver does not need to be able to take over the driving task
Example: Highway driving up to 130 km/h

2020
HIGHLY AUTOMATED
- Monitoring of the system not required
- Driver needs to be able to take over the driving task with lead time
Example: Stop-and-go (highway)

2016
PARTIALLY AUTOMATED
- Monitoring of the system required
- Driver needs to be able to take over the driving task at any moment
Example: Stop-and-go up to 30 km/h
WILL AUTONOMOUS CARS STILL NEED TRAFFIC LIGHTS?

SMART AUTONOMOUS INTERSECTIONS MERGE TRAFFIC FLOWS, REDUCING EMISSIONS AND INCREASING THROUGHPUT
State Street, looking north from Madison (1925)
How to Keep Well.

By Dr. W. A. Evans.

Children playing in the streets are annoying to grown people at times. On the other hand, grown people on the streets are at times annoying to children.

I think most people agree with Mr. Aronson of Newark, N. J., who thinks streets are for children to play in.
How to Keep Well.

By Dr. W.A. Evans.

Children playing in the streets are annoying to grown people at times. On the other hand, grown people on the streets are at times annoying to children. I think most people agree with Mr. Aronson of Newark, N. J., who thinks streets are for children to play in.
How to Keep Well.

By Dr. W.A. Evans.

Children playing in the streets are annoying to grown people at times. On the other hand, grown people on the streets are at times annoying to children.

I think most people agree with Mr. Aronson of Newark, N. J., who thinks streets are for children to play in.
How to Keep Well.

By S. H. Hensley

Children play annoying to grown people. On the other hand, grown people are at times annoying to children. I think most people agree that the presence of children is more refreshing and entertaining than that of adults.


cLON N. L., No. 236, C.

TUESDAY, OCTOBER 19, 1915—TWENTY-FOUR PAGES

OCTOBER 19, 1915.

LET THE AUTOISTS BEWARE.

Chicago, Oct. 17.—[Editor of The Tribune.]

... the public has a right to use the public streets in preference to the drivers of all vehicles whatsoever.

... In short, the streets were made for the public in general, not specially for autoists.

JAMES O. MILLAR.
R.F. Kelker, Chicago’s leading traffic expert, 1922
Our conclusion is that, owing to the density of pedestrian traffic, the best means of handling both classes of traffic is to permit the pedestrians to filter through the traffic without obeying the whistle signals, although there may result a slight slowing up of vehicles. This is our present practice and accidents in the Loop are nil.
Our conclusion is that, owing to the density of pedestrian traffic, the best means of handling both classes of traffic is to permit the pedestrians to filter through the traffic without obeying the whistle signals, although there may result a slight slowing up of vehicles. This is our present practice and accidents in the Loop are nil.
Our conclusion is that, owing to the density of pedestrian traffic, the best means of handling both classes of traffic is to permit the pedestrians to filter through the traffic without obeying the whistle signals, although there may result a slight slowing up of vehicles. This is our present practice and accidents in the Loop are nil.
R.F. Kelker, Chicago’s leading traffic expert, 1922:

Our conclusion is that, owing to the density of pedestrian traffic, the best means of handling both classes of traffic is to permit the pedestrians to filter through the traffic without obeying the whistle signals, although there may result a slight slowing up of vehicles. This is our present practice and accidents in the Loop are nil.
You'll See Them Everywhere in Chicago

Flecking the boulevards and downtown thoroughfares with brilliant patches of color—dominating Chicago's 50,000 other motor cars as a king's coach would dominate a procession of one-horse shays.

And when you see them—Chicago's famous Yellow Cabs, 260 strong—and when you ride in them—as everyone who comes to Chicago does—note the master workmanship, inside and out, of the RACINE Bodies which adorn their sturdy chassis.
SLIDE RULE TRAFFIC CHART ADAPTED TO USE ON CLEVELAND STREETS
City officials are shown making final tests on new system of traffic control lights, which will be turned on in loop this morning. Left to right in front of city hall switchboard are Chief Collins, Mayor Dever, Daniel Ramsey, John T. Miller, Ald. Ross Woodhull, and Fire Commissioner Connery.

[Tribune Photo]
MAELSTROM OF LOOP TAMED BY TRAFFIC LIGHTS

Records Broken in 5-Hour Tribune Auto Test.

BY J. L. JENKINS.

From the motorist's standpoint, Chicago's new traffic control lights regulating the human tide in loop streets won an instant and unqualified success yesterday.

Yes, from the theoretical "economic"
MAELSTROM OF LOOP TAMED BY TRAFFIC LIGHTS

Records Broken in 5-Hour Tribune Auto Test.

BY J. L. JENKINS.

From the motorist's standpoint, Chicago's new traffic control lights regulating the human tide in Loop streets won an instant and unqualified success yesterday.
MAELSTROM OF LOOP TAMED BY TRAFFIC LIGHTS

Records Broken in 5-Hour Tribune Auto Test.

BY J. L. JENKINS.

From the motorist's standpoint, Chicago's new traffic control lights regulating the human tide in loop streets won an instant and unqualified success yesterday.

"This intersection has handled more cars to noon than at any period I can remember," he says. "They slip through here like oil. You don't hear the horn tooting and fuss we usually get at noon. Look at the drivers. They've all got smiles on their faces."
MAELSTROM OF LOOP TAMED BY TRAFFIC LIGHTS

Records Broken in 5-Hour Tribune Auto Test.

By J. L. Jenkins.

From the motorist's standpoint, Chicago's new traffic control lights regulating the human tide in Loop streets won an instant and unqualified success yesterday.

"This intersection has handled more cars to noon than at any period I can remember," he says. "They slip through here like oil. You don't hear the horn tooting and fuss we usually get at noon. Look at the drivers. They've all got smiles on their faces."
Maelstrom Of Loop Tamed By Traffic Lights

Records Broken in 5-Hour Tribune Auto Test.

By J. L. Jenkins,

From the motorist's standpoint, Chicago's new traffic control lights regulating the human tide in loop streets won an instant and unqualified success yesterday.

"This intersection has handled more cars to noon than at any period I can remember," he says. "They slip through here like oil. You don't hear the horn tooting and fuss we usually get at noon. Look at the drivers. They've all got smiles on their faces.

A Clark Street Fairy Tale!

Continuing our ride, we may as well tackle Clark street, one of the most difficult traffic streets in the loop. The Clark street log, starting from Van Buren north at 12:30 p.m., reads like a fairy tale: "Go at Jackson. Go at Adams. Go at Madison. Go at Washington, but headed in behind a horse drawn wagon. Stop at Randolph. To Lake street in 4 minutes, 50 seconds!"
MAELSTROM OF LOOP TAMED BY TRAFFIC LIGHTS

Records Broken in 5-Hour Tribune Auto Test.

BY J. L. JENKINS.

From the motorist’s standpoint, Chicago’s new traffic control lights regulating the human tide in loop streets won an instant and unqualified success yesterday.

“...This intersection has handled more cars to noon than at any period I can remember,” he says. “They slip through here like oil. You don’t hear the horn tooting and fuss we usually get at noon. Look at the drivers. They’ve all got smiles on their faces.

A Clark Street Fairy Tale!

Continuing our ride, we may as well tackle Clark street, one of the most difficult traffic streets in the loop. The Clark street log, starting from Van Buren north at 12:30 p.m., reads like a fairy tale: “Go at Jackson. Go at Adams. Go at Madison. Go at Washington, but headed in behind a horse drawn wagon. Stop at Randolph. To Lake street in 4 minutes, 50 seconds!”
MAELSTROM OF LOOP TAMING BY TRAFFIC LIGHTS

Records Broken in 5-Hour Tribune Auto Test.

BY J. L. JENKINS.

From the motorist’s standpoint, Chicago’s new traffic control lights regulating the human tide in loop streets won an instant and unqualified success yesterday.

Chief Collins said: “The lights are working out far beyond our expectations. There has been no trouble with wheeled traffic. The pedestrian is our one big worry. Please ask the Chicago pedestrian for me to have patience and walk with the lights.”

“This intersection has handled more cars to noon than at any period I can remember,” he says. “They slip through here like oil. You don’t hear the horn tooting and fuss we usually get at noon. Look at the drivers. They’ve all got smiles on their faces."

A Clark Street Fairy Tale:

Continuing our ride, we may as well tackle Clark street, one of the most difficult traffic streets in the loop. The Clark street log, starting from Van Buren north at 12:30 p.m., reads like a fairy tale: “Go at Jackson. Go at Adams. Go at Madison. Go at Washington, but headed in behind a horse drawn wagon. Stop at Randolph. To Lake street in 4 minutes, 50 seconds!”

Chief Collins said: “The lights are working out far beyond our expectations. There has been no trouble with wheeled traffic. The pedestrian is our one big worry. Please ask the Chicago pedestrian for me to have patience and walk with the lights.”
MAELSTROM OF LOOP TAMED BY TRAFFIC LIGHTS
Records Broken in 5-Hour Tribune Auto Test.

BY J. L. JENKINS.
From the motorist's standpoint, Chicago's new traffic control lights regulating the human tide in loop streets won an instant and unqualified success yesterday.

"This intersection has handled more cars to noon than at any period I can remember," he says. "They slip through here like oil. You don't hear the horn tooting and fuss we usually get at noon. Look at the drivers. They've all got smiles on their faces."

A Clark Street Fairy Tale!
Continuing our ride, we may as well tackle Clark street, one of the most difficult traffic streets in the loop. The Clark street log, starting from Van Buren north at 12:30 p.m., reads like a fairy tale: "Go at Jackson. Go at Adams. Go at Madison. Go at Washington, but headed in behind a horse drawn wagon. Stop at Randolph. To Lake street in 4 minutes, 50 seconds!"

Chief Collins said: "The lights are working out far beyond our expectation. There has been no trouble with wheeled traffic. The pedestrian is our one big worry. -Please ask the Chicago pedestrian for me to have patience and walk with the lights."
MAELSTROM OF LOOP TAMED BY TRAFFIC LIGHTS
Records Broken in 5-Hour Tribune Auto Test.

BY J. L. JENKINS.

From the motorist’s standpoint, Chicago’s new traffic control lights regulating the human tide in Loop streets won an instant and unqualified success yesterday.

Chief Collins said: “The lights are working out far beyond our expectations. There has been no trouble with wheeled traffic. The pedestrian is our one big worry. Please ask the Chicago pedestrian for me to have patience and walk with the lights.”

“This intersection has handled more cars to noon than at any period I can remember,” he says. “They slip through here like oil. You don’t hear the horn tooting and fuss we usually get at noon. Look at the drivers. They’ve all got smiles on their faces.

A Clark Street Fairy Tale!

Continuing our ride, we may as well tackle Clark street, one of the most difficult traffic streets in the loop. The Clark street log, starting from Van Buren north at 12:30 p.m., reads like a fairy tale: “Go at Jackson. Go at Adams. Go at Madison. Go at Washington, but headed in behind a horse drawn wagon. Stop at Randolph. To Lake street in 4 minutes, 50 seconds!”

Tuesday, February 9, 1926
Pedestrian Dangers Grow as Loop Speeds Up.

BY J. L. JENKINS.

(Picture on back page.)

Pedestrian dangers and parked cars appeared yesterday as two highly troublesome flies in the traffic ointment poured over the Chicago loop by the new automatic traffic control system.

Operating smoothly with the new
Pedestrian Dangers Grow
as Loop Speeds Up

But the pedestrian problem became more acute as driver confidence in the control system increased and cars moved faster across the crowded intersections. At State and Madison streets, where pedestrian traffic is heaviest, and at Clark and Madison, where cars turning right around the corner form nearly thirty per cent of the traffic density, the walker found life one succession of heart thrills, dodges, and jumps.
Pedestrian Dangers Grow
as Loop Speeds Up

But the pedestrian problem became more acute as driver confidence in the control system increased and cars moved faster across the crowded intersections. At State and Madison streets, where pedestrian traffic is heaviest, and at Clark and Madison, where cars turning right around the corner form nearly thirty per cent of the traffic density, the walker found life one succession of heart thrills, dodges, and jumps.
But the pedestrian problem became more acute as driver confidence in the control system increased and cars moved faster across the crowded intersections. At State and Madison streets, where pedestrian traffic is heaviest, and at Clark and Madison, where cars turning right around the corner form nearly thirty per cent of the traffic density, the walker found life one succession of heart thrills, dodges, and jumps.
Pedestrian Dangers Grow as Loop Speeds Up

But the pedestrian problem became more acute as driver confidence in the control system increased and cars moved faster across the crowded intersections.

Many Pedestrians Stranded.

At almost any moment in the afternoon and early evening a score or more persons could be seen stranded in the middle of these intersections between two steady lines of vehicles or huddled in the street car safety zones awaiting their chance to skip to safety on the sidewalk.

With traffic moving faster, the park was difficult with the sidewalks.
Pedestrian Dangers Grow

as Loop Speeds Up

But the pedestrian problem became more acute as driver confidence in the control system increased and cars moved faster across the crowded intersec-tions.

Many Pedestrians Stranded.

At almost any moment in the afternoon and early evening a score or more persons could be seen stranded in the middle of these intersections between two steady lines of vehicles or huddled in the street car safety zones awaiting their chance to skip to safety on the sidewalk.

With traffic moving faster, the park-bench diffi-culty of the pedestrian has become

Wednesday,
February 10, 1926
Pedestrian Dangers Grow as Loop Speeds Up

But the pedestrian problem became more acute as driver confidence in the control system increased and cars moved faster across the crowded intersections.

Many Pedestrians Stranded.

At almost any moment in the afternoon and early evening a score or more persons could be seen stranded in the middle of these intersections between two steady lines of vehicles or huddled in the street car safety zones awaiting their chance to slip to safety on the sidewalk.

With traffic moving faster, the park...
WILL AUTONOMOUS CARS STILL NEED TRAFFIC LIGHTS?

SMART AUTONOMOUS INTERSECTIONS MERGE TRAFFIC FLOWS, REDUCING EMISSIONS AND INCREASING THROUGHPUT
WILL AUTONOMOUS CARS STILL NEED TRAFFIC LIGHTS?

SMART AUTONOMOUS INTERSECTIONS MERGE TRAFFIC FLOWS, REDUCING EMISSIONS AND INCREASING THROUGHPUT
WILL AUTONOMOUS CARS STILL NEED TRAFFIC LIGHTS?

SMART AUTONOMOUS INTERSECTIONS MERGE TRAFFIC FLOWS, REDUCING EMISSIONS AND INCREASING THROUGHPUT
future
“There’s a very entrenched status quo.”
“There’s a very entrenched status quo.”

— Corinne Kisner
“There’s a very entrenched status quo.”

— Corinne Kisner
past → status quo → future 1
future 2
BICYCLE RACKS FOR STREET CARS.

New and Sensible Device for Carrying Wheels on the Rear Dashboards.

Out in Sacramento, Cal., one of the companies which operate trolley lines of street cars has adopted a bicycle rack, which holds two wheels. The rack is attached to the rear dashboard of the car, and the bicy-

BICYCLE RACK FOR CARS.

cles are carried there at the owners' risk. The charge is five cents for each bicycle in addition to the regular fare.

The accommodation is used mostly by those whose wheels have come to grief. The chance of damage from vehicles striking the rear of the car is great, and prevents the general use of the bicycle racks.
GROWTH IN NUMBER OF AUTOMOBILE FATALITIES IN THE UNITED STATES

YEARS

1901  '06  '09  '10  '11  '12  '13  '14  '15  '16  '17  '18  '19  '20  '21  '22  '23

0  2000  4000  6000  8000  10000  12000  14000  16000
DEATHS DUE TO MOTOR VEHICLES
CITY OF PHILADELPHIA
YEAR 1928

Motor Vehicle
with
Pedestrian
74.9%

Motor Vehicle with Motor Vehicle
10.4%

Motor Vehicle with Fixed Object
6.8%

Motor Vehicle with Electric Car
5.0%

Motor Vehicle with Bicycle
2.5%

Motor Vehicle with Horse Vehicle
0.4%

PHILADELPHIA TRAFFIC SURVEY
PREPARED UNDER THE DIRECTION OF
WITTEN MANAGEMENT INC.
PHILADELPHIA PA.

Compiled from Phila. Police Dept. Records
NATION ROUSED AGAINST MOTOR KILLINGS

The need for vigorous na-

tion-wide utilize to pre-

vent and safely was presented Secretary

Hoover to call a conference of

representatives of the various

motor organizations. The con-

ference will be held in Wash-

ington on Dec. 15. It will meet the subjects of

safety, including the

control, construction and

maintenance of roads, the

fundamental cause of the con-

struction of a motor and public

relations.

The increase of motor accidents is to be

recognized as a serious problem of

the nation. The automobile is on its way to being

the most important form of transportation.

The number of deaths in automobile

accidents in the United States.

The accident rate per million miles

in 1923 was 1,059, or an increase of

15 per cent from the rate in 1922.

In the first six months of 1924,

there were 1,000,000 accidents and 2,000

deaths. The increase in the number of

accidents has been gradual,

but the number of deaths has

increased sharply.

Secretary Hoover's Conference Will Suggest Many Ways to Check The Alarming Increase of Automobile Fatalities—Studying Huge Problem

In streets and roads, automobile that would have pre-owned car will now come to the city. This is a trend that will continue in the future.

The accident rate in motor vehicles is now

more than double what it was in 1920, when there were 500,000 accidents and 1,000 deaths.

The increase in the number of deaths is due to the increase in the number of accidents, which has been caused by the increase in the number of motor vehicles on the roads.

Secretary Hoover has asked for the conference to be held in Washington on Dec. 15. It will meet the subjects of safety, including the control, construction and maintenance of roads, the fundamental cause of the construction of a motor and public relations.

The conference will be held in Wash-

ington on Dec. 15. It will meet the subjects of

safety, including the

control, construction and

maintenance of roads, the

fundamental cause of the con-

struction of a motor and public

relations.

New York Times, 1924
THE DANCE OF DEATH THAT GOES ON BETWEEN THE SIDEWALKS OF NEW YORK

New York 1928
THE DANCE OF DEATH THAT GOES ON BETWEEN THE SIDEWALKS OF NEW YORK

Sacrifices to the Modern Moloch

By James

New York 1928

St. Louis 1923
VOTE "YES"
On the Ordinance to Curb Speeding
Which Shall A Limit of 25 Miles Per Hour and SAFETY
It Be---
or---
No Limit and the Lurking Danger of DEATH!

Sacrifices to the Modern Moloch
By James

St. Louis 1923
THE GREAT WALL
of CHINA
AGAINST
PROGRESS

China is the most
Backward of All Nations

Would YOU
Build a Wall Around
CINCINNATI
AND RETARD YOUR CITY'S
PROGRESS?

Defeat the Motor Governor Ordinance
It Will NOT Curb Reckless Driving!

There are the things that will happen if the city of the civilized
Motor Governor is made mandatory:
1. A RECKLESS DRIVER will continue to drive with the speed of
sunbeams. You may stop him, but he will hit you or go.
2. The consumer of the automobile will continue to
scream because the government has no control over the
speed of the automobile.
3. The speed of the automobile will continue to increase
because there is no government control.
4. The government should not have to control the
speed of the automobile, and it cannot control it.

Present Laws Are
Adequate

These laws and ordinances are
adequate to check auto speeding,
but what is needed is a LAW TO ENFORCE
them.

VOTE "YES" on the Ordinance to Curb Speeding
Which Shall
A Limit of 25 Miles Per Hour and SAFETY
or
No Limit and the Lurking Danger of DEATH!

VOTE "NO"

Do Not Help To Build a Chinese Wall Around Cincinnati
Let's Make It Unanimous and—
Continued Growth of Motor Accidents a Threat to Industry

Safety problem one which still awaits solution. Of vital importance to the manufacturer. Last year's casualty list heaviest in history. The situation today.
Continued Growth of Motor Accidents a Threat to Industry

Safety problem one which still awaits solution. Of vital importance to the manufacturer. Last year’s casualty list heaviest in history. The situation today.

HOG-TYING

the AUTOMOBILE

The Latest Proposed Law Would Do This With a Vengeance
LACK OF HIGHWAY SPACE HINDERING MOTOR CAR SALES

Saturation Point in Transportation Will Never Be Reached,
Says Jordan

The saturation point in the business of transportation will never be reached, but the saturation point of highway and street capacity is not far off.

That is the greatest resistance today to the increased sale of motor cars, according to Edward S. Jordan, of the Jordan Motor Car company, and a member of the Safety committee of the National Automobile Chamber of Commerce. . . .

Soon the saturation point in floor space for transportation will be reached unless every city makes immediate preparation. . . .

In the final analysis you cannot restrict the use of automobiles. You must provide floor space for their operation.
Motor Killings and the Engineer

In the year 1921, the Bureau of the Census announced, 10,168 deaths from accidents caused by four-wheeled motor vehicles occurred within the registration area of the United States, which contains about 82 per cent of the population. This is a death rate of 11.5 per 100,000, an increase of 28 per cent over 1917. Further than that, the increase in rate is itself increasing from year to year, and the rate in the sixty-five largest cities averages about 15 per 100,000. These are alarming statistics. Couple with them the statement just made by Chief Magistrate McAdoo of New York City, that before long all of Manhattan below 14th St. will have to be one-way streets barred to pleasure vehicles, and that there are 2,000 unprotected crossings in the city where policemen are needed, and the seriousness of the motor traffic problem will be realized. Part of the trouble is due to the laxity of the driver license requirements, part to the carelessness of drivers and their common assumption of superior right-of-way over the pedestrian at crossings, but mostly it is the inevitable result of an increase of motor use far beyond the capacity of a city street system laid out for slow moving traffic in small volume. There is little chance of this motor use decreasing or even of remaining stable. Driver and traffic regulations can only remove a part of the difficulty. The obvious solution, then, lies only in a radical revision of our conception of what a city street is for, and this reduces to a problem for the engineer. Motor boulevards, second-story streets, under or over crossings for pedestrians, all are probabilities of the near future in our congested centers and engineers responsible for our city developments must take account of such things as actualities and not as dreams.
Motor Killings and the Engineer

In the year 1921, the Bureau of the Census announces, 10,168 deaths from accidents caused by four-wheeled motor vehicles occurred within the registration area of the United States, which contains about 82 per cent of the population. This is a death rate of 11.5 per 100,000, an increase of 28 per cent over 1917. Further than that, the increase in rate is itself increasing from year to year, and the rate in the sixty-five largest cities averages about 15 per 100,000. These are alarming statistics. Couple with them the statement just made by Chief Magistrate McAdoo of New York City, that before long all of Manhattan below 14th St. will have to be one-way streets barred to pleasure vehicles, and that there are 2,000 unprotected crossings in the city where policemen are needed, and the seriousness of the motor traffic problem will be realized. Part of the trouble is due to the laxity of the driver license requirements, part to the carelessness of drivers and their common assumption of superior right-of-way over the pedestrian at crossings, but mostly it is the inevitable result of an increase of motor use far beyond the capacity of a city street system laid out for slow moving traffic in small volume. There is little chance of this motor use decreasing or even of remaining stable. Driver and traffic regulations can only remove a part of the difficulty.

The obvious solution, then, lies only in a radical revision of our conception of what a city street is for, and this reduces to a problem for the engineer. Motor boulevards, second-story streets, under-or over-crossings for pedestrians, all are probabilities of the near future in our congested centers and engineers responsible for our city developments must take account of such things as actualities and not as dreams.
“The obvious solution ... lies only in a radical revision of our conception of what a city street is for.”
FOR SAFETY'S SAKE

CROSS

This way - not here - not this way

QUIT JAY WALKING

KIWANIS
COMMANDMENT—No. 1. Don't play on the street.

Stay on the sidewalk or in your yard. The street is for autos. Autos are increasing. Streets are not. Therefore the street is dangerous at all times, and you must remember to "Always Be Careful."
COMMANDMENT — No. 1. Don't play on the street.

Stay on the sidewalk or in your yard. Streets are not. Therefore the street is for autos. Autos are increasing, and you must remember to "Always Be Careful."
The street is for autos.
past 1 → status quo → future 1
past 2
future 2
past 1 → status quo → future 1
past 2 → status quo
utopia
Keep the Consumer Dissatisfied

By CHARLES F. KETTERING
General Director, General Motors Research Laboratories

Cartoons by Stuart Hay

Not long ago one of the great bankers of the country said to me:

The trouble with you fellows is that you are all the time changing automobiles and depreciating old cars, and you are doing it at a time when people have three or four payments to make on the cars they already have.

"Yesterday I got an engraved invitation from one of your companies to see a new model. Out of curiosity I went. I have never bought one. I didn't because you wouldn't allow me enough money for my old car.

A few weeks later I was again talking with this banker. He appeared to be greatly disgruntled.

"I bought that new model," he barked.

"But it was a rotten shame that I had to accept so much depreciation on my old car. You are the fellow who is to blame. You, with all your changes and refinements, made me dissatisfied with the old model."

He paused, then added, mournfully, "And that old car ran like new.

I told him I thought it was worth what he paid—that is, the difference between the old and the new model—to have his mind changed.

He didn't argue over that but he did say something to the general effect that "the only reason for research is to keep your customers reasonably dissatisfied with what they already have."

I might observe, here and now, that he was right.

A few weeks back I was sitting with a group of executives. All were admiring a new model.

"It is absolutely the best automobile that can be made," enthused one. I objected to that statement.

"Let's take this automobile which you say is the best that can be made and put it into a glass showcase," I said. "Let's put it in there—and it is so person can possibly touch it. Just before we seal it in the case let us mark the price in big letters inside the case.

Depreciates Without Use

"Let us do that and come back here a year from today. After looking at it and appraising it, we will mark a price on the outside of the glass. It will be a price something less than what we think the car is worth today."

Then, let's come back once every year for ten years, look through the glass, and mark a new price. At the end of ten years we won't be able to put down enough figures to indicate what we think of the car. That is, of course, diminishing its value as junk.

In these ten years, no one could possibly have touched the car. There could be no increased value through handling. The paint would be just as good as new; the cranks just as good; the rear axle just as good; and the motor just as good as ever.

"What then, has happened to that car? People's minds will have been changed; improvements will have come in other cars; new styles will have come. What you have here today, a car that you call the best that can be made, will then be useless. It isn't the best that can be made. It may be the best you have made, and that is what you mean, I have no quarrel with what you say."

Another prominent banker once said to me:

"You research people are always disruptive. You cause us more trouble than any other group. I, as a banker, will make a loss to a firm and am apt to discover, in a few days, that you fellows have put this concern out of business. All because your research methods have found different ways for doing things. Perhaps they are better, but what of it?"

This banker was thoughtless.

Prosperity has nothing to do with dan-
Keep the Consumer Dissatisfied

NOT LONG ago one of the great bankers of the country said to me:

"The trouble with you fellows is that you are all the time changing automobiles and depreciating old cars, and you are doing it at a time when people have three or four payments to make on the cars they already have."

"Yesterday I got an engraved invitation from one of your companies to see a new model. Out of curiosity I went. I saw a new car. I didn't buy it because you people wouldn't allow me enough money for my old car."

A few weeks later I was again talking with this banker. He appeared to be greatly disappointed.

"I bought that new model," he barked. "But it was a rotten shame that I had to accept so much depreciation on my old car. You are the fellow who is to blame. You, with all your changes and refinements, made me dissatisfied with the old model."

He paused, then added, mournfully:

"I told him I thought it was worth what he paid—that is, the difference between the old and the new model—to have his mind changed.

"He didn't argue over that but he did say something to the general effect that "the only reason for research is to keep your customers reasonably satisfied with what they already have."

I might observe, here and now, that he was right.

A few weeks back I was sitting with a group of executives. All were admiring a new model.

"It is absolutely the best automobile that can be made," enthused one. I objected to that statement.

"Let's take this automobile which you say is the best that can be made and put it into a glass show window," I said. "Let's put it in there—and see if no person can possibly touch it. Just before we seal it in the case let us mark the price in big letters inside the case."

Depreciates Without Use

"Let us do that and come back here a year from today. After looking at it and appreciating it, we will mark a price on the outside of the glass. It will be a price something less than what we think the car is worth today."

"Then, let's come back once every year for ten years, look through the glass, and mark a new price. At the end of ten years we won't be able to put down enough figures to indicate what we think the car is worth."

"In these ten years, no one could possibly have touched the car. There could be no beneficial value through handling. The paint would be just as good as new; the crank case just as good; the rear axle just as good; and the motor just as good as ever."

“What, then, has happened to this car? "People's minds will have been changed; improvements will have come in other cars, new styles will have come. What you have here today, a car that you call the best that can be made, will then be useless. So it isn't the best that can be made. It may be the best you have made, and, if that is what you meant, I have no quarrel with what you said."

Another prominent banker once said to me:

"You research people are always disturbing things. You cause us more trouble than any other group. I, as a banker, will make a loan to a firm and am apt to discover, in a few days, that you fellows have put this concern out of business. All because your research methods have found different ways for doing things. Perhaps they are better ways, but what of it?" The old ways were satisfactory.

This banker was thoughtless. Prosperity has nothing to do with del-
DON'T FOOL YOURSELF
Since halitosis never announces itself, to the victim, you simply cannot know when you have it.

Halitosis makes you unpopular
It is unexcusable . . . can be instantly remedied
Don't fool yourself
Since halitosis never announces itself, to the victim, you simply cannot know when you have it.

Halitosis makes you unpopular
It is unexcusable... can be instantly remedied
Chevrolet

$645

so Smooth - so Powerful

QUALITY AT LOW COST
PONTIAC SIX

so Smooth - so Powerful

QUALITY AT LOW COST
GRATIFIES YOUR FINER TASTES
Satisfies your every need

CHEVROLET
For Residential Travel

PONTIAC SIX
so Smooth - so Powerful

QUALITY AT LOW COST
TRAFFIC WOES MAY BE ENDED

50 M.P.H. With Safety In “City Of Tomorrow.”

Driving along Main Street, block after block, at 50 miles an hour with absolute safety and without any stops at intersections or dodging around flitting pedestrians sounds like Utopia, but what we are really talking about is the “City of Tomorrow.”

There are no intersections on these boulevards, because where they meet one crosses over the other. Thus, intersectional friction is banished and the need for traffic lights does not exist. Cars can move at 50 miles an hour without danger to other cars. At the intersections, turn-offs, are provided so cars can change direction without crossing the traffic stream.

The pedestrian is able to walk through all this with dignity and safety. Sidewalks have been raised a story above the street level and bridged across the intersections. The pedestrian, walking at a rate of four miles an hour, is no longer forced to battle his way through traffic moving at a much higher and destructive rate of speed.
THE NEW NECESSITY
The Culmination of a Century of Progress in Transportation

BY
CHARLES F. KETTERING
Vice President, General Motors Corporation
General Director, Research Laboratories

ALLEN ORTH
Engineer, General Motors Corporation,
Research Laboratories

Baltimore, 1932
THE WILLIAMS & WILKINS COMPANY
AND ITS ASSOCIATES IN COOPERATION WITH
The CENTURY of PROGRESS EXPOSITION
THE INSOLENT CHARIOTS

JOHN KEATS

"Funny enough to crack a rib."
MINNEAPOLIS STAR TRIBUNE

ILLUSTRATED BY ROBERT OSBORN
THE INSOLENT CHARIOTS
JOHN KEATS

"Funny enough to crack a rib."
MINNEAPOLIS STAR TRIBUNE

ILLUSTRATED BY ROBERT OSBORN

A MENTOR BOOK

The foremost analyst of the metropolis in history discusses the rampant ills of today's strangled cities

LEWIS MUMFORD The Highway and the City
THE DEATH AND LIFE OF GREAT AMERICAN CITIES

By JANE JACOBS

$5.95, now at your bookstore
RANDOM HOUSE

Harrison Salisbury of the New York Times hails the book as "the most refreshing, stimulating and exciting study of this greatest of our problems of which I've seen. It fairly crackles with the honesty and good sense."

William H. Whyte, author of The Organization Man, calls it "magnificent. One of the most remarkable books ever written about the city."
Sunday, September 17, 1961
Sunday, September 17, 1961
Sunday, September 17, 1961

Merrily We Roll Along
America’s love affair with the automobile
General Motors (1964)

HIGHWAY PROGRESS

Highway progress is everyone's responsibility...
blitzes bugs!

PESTROY DDT

TRADE MARK REG. U. S. PAT. OFF.

KILLS: ROACHES, BEDBUGS, MOTHS, FLEAS, LICE, SILVERFISH, GNATS, TICKS, WASPS, CRICKETS, ANTS, MANY OTHER INSECTS.

LASTS FOR MONTHS!

69¢ PINT

39¢ 3 OZ. SAFE! SURE!

PRODUCTS OF SHERWIN-WILLIAMS RESEARCH
THESE DEADLY PESTS CARRY THEM ALL!

For the Sake of Your Health

KILL THEM

NEW HUDSON NEBULIZER

Kills Common Pests...Quickly, Surely, Economically

There's no more need to fuss with old-fashioned sprayers. Loaded with any make AA grade insecticide, the Hudson Nebulizer 4-jet nozzle shoots a fine, lasting spray that stays in the air longer...knocks down 20% more flies, kills 25% more of them.† Used on walls or clothes, it can deposit a fine protective film, deadly to cockroaches, moths, ants, mosquitoes, others. Hudson Nebulizers, in sizes from ½ pt. to 2 qt., priced from about 50c to $2.00, at dealers everywhere.

† Based on independent laboratory tests.

Many authorities suspect the common fly of carrying Polio virus.

blitzes bugs!

PESTROY DDT

KILLS: Roaches, Bedbugs, Moths, Fleas, Lice, Silverfish, Gnats, Ticks, Wasps, Crickets, Ants, Many Other Insects.

LASTS FOR MONTHS!

69¢ PINT 39¢ 3 OZ. SAFE! SURE!

PRODUCTS OF SHERWIN-WILLIAMS RESEARCH
SUPERHIGHWAYS WOULD SAVE 2½ MILLIONS YEARLY

Survey Reveals Benefits to Car Owners.

BY HAL FOUST.

Chicago motorists using the initial units of a superhighway system proposed in the city's traffic survey would save $2,395,312 a year in time now lost in the delays of surface street level. They would also save $143,871 in lives and limbs, using insurance companies' cold evaluations of $4,000 for a life and $250 for a personal injury.

Survey covering twenty-month period.
Why is this not “delay”?
Cure for Congestion

DAVISON LIMITED HIGHWAY, DETROIT. Built by the Board of Wayne County (Michigan) Road Commissioners, this limited highway provides nonstop highway travel for 1\frac{1}{2} miles through a solidly built-up neighborhood in the Detroit area. Concrete bridges carry cross traffic over the expressway. Entrance to the expressway is permitted only at each end. One-way concrete service drives for local traffic are provided on both sides of the concrete highway. At the center of the project, provision is made for bus stops and passenger interchange with the upper level.
Cure for Congestion

DAVISON LIMITED HIGHWAY, DETROIT. Built by the Board of Wayne County (Michigan) Road Commissioners, this limited highway provides nonstop highway travel for 1½ miles through a solidly built-up neighborhood in the Detroit area. Concrete bridges carry cross traffic over the expressway. Entrance to the expressway is permitted only at each end. One-way concrete service drives for local traffic are provided on both sides of the concrete highway. At the center of the project, provision is made for bus stops and passenger interchange with the upper level.
AMERICAN HIGHWAY USERS ALLIANCE

Unclogging America’s Arteries 2015
Prescriptions for Healthier Highways

2015 | WWW.HIGHWAYS.ORG

AMERICA’S
G.P.A.A.D+

ESTIMATED INVESTMENT
NEEDED BY 2020:
$3.6 TRILLION
AMERICAN HIGHWAY USERS ALLIANCE

Unclogging America’s Arteries 2015
Prescriptions for Healthier Highways

2015 | WWW.HIGHWAYS.ORG

AMERICA’S G.P.A.D+

ESTIMATED INVESTMENT NEEDED BY 2020:
$3.6 TRILLION
DAVISON LIMITED HIGHWAY, DETROIT. Built by the Board of Wayne County (Michigan) Road Commissioners, this limited highway provides nonstop highway travel for 1½ miles through a solidly built-up neighborhood in the Detroit area. Concrete bridges carry cross traffic over the expressway. Entrance to the expressway is permitted only at each end. One-way concrete service drives for local traffic are provided on both sides of the concrete highway. At the center of the project, provision is made for bus stops and passenger interchange with the upper level.
So delicately interwoven are the relationships that when we disturb one thread of the community fabric we alter it all.
Where can all these cars go?
America’s Future Progress Depends On Better And Safer Highways

Firestone Tire and Rubber Company (1955)
HIGHWAY PROGRESS

Highway progress is everyone's responsibility.
Future historians may well be astounded by our distorted sense of proportion.
well be afhazed by our distorted sense of proportion.

Future historians may
well be amazed by our distorted sense of proportion.

Future historians may
the chemical war is never won.
the traffic war is never won
the traffic war is never won.
A Policy On Highway Classification

Published by the Association
General Offices
1220 National Press Building
Washington, D. C.
1940
Reprinted 1945 and 1947

POLICIES on GEOMETRIC HIGHWAY DESIGN

American Association of State Highway Officials
Reprinted in One Volume 1950
Second Reprinting—1952
USDA's Food Guide
Background and Development

POLICIES
on
GEOMETRIC
HIGHWAY DESIGN

AMERICAN ASSOCIATION OF
STATE HIGHWAY OFFICIALS

Reprinted in One Volume 1959
Second Reprinting—1952
Urban Bikeway Design Guide
National Association of City Transportation Officials
Second Edition
Why Don't We Have…

CRASH-PROOF HIGHWAYS

with automatic pilots to take the wheel for trip-weary, accident-prone drivers.

By George W. Gibson

IN this age of flying saucers and 600-mph aircraft, automatic pilots are accepted as being very commonplace for airplanes. But why not automatic pilots for autos?

If an inventor should offer the motorist an automatic pilot for his car, consider the tremendous safety value of such a device. The human element would be eliminated from driving. Our highways would become virtually crashproof.

Here is a system based on magnetic detection—(similar to that used to locate land mines in World War II) and radar, since it would be impractical to use radio beams as a means of directional control as with aircraft.

A ribbon of metallic material approximately 12 inches wide is located in the center of each highway lane and would have been incorporated in the highway concrete as it was poured.

The automatic pilot needs the following equipment: two magnetic detection units, a radar unit and an engine governor. This unit would work in conjunction with the car's power steering and automatic transmission. The detection units would be mounted under the nose of the vehicle, one on each side of a horizontal line running lengthwise through the body. The narrow-beam parabolic reflector of the radar antenna, en-
WILL AUTONOMOUS CARS STILL NEED TRAFFIC LIGHTS?

SMART AUTONOMOUS INTERSECTIONS MERGE TRAFFIC FLOWS, REDUCING EMISSIONS AND INCREASING THROUGHPUT.
The clockspeed dilemma

What does it mean for automotive innovation?

November 2016

kpmg.com
The clockspeed dilemma

What does it mean for automotive innovation?

Consumers want one trillion miles of more mobility

In previous papers, we described how innovations in autonomous vehicles, connectivity, and mobility-on-demand are affecting consumer behavior and creating new, unmet consumer needs. We haven’t changed our perspective. Those innovations are producing changes in consumer behavior that lead them toward the Sexy Dynamic Experience, creating the faster clockspeeds that the auto industry must satisfy—especially when it comes to mobility options.

One thing is different, however. We are floored by how much the pace of change has accelerated in just one year. When we look at focus groups and our modeling, we understood why.

Two roads to the same place: An increasing desire for mobility options

Two generations will largely drive consumer demand in the future: the millennials and the “baby boomers plus”—those ranging in age from 46 to 75 years. Both groups are changing their behaviors in widely different ways. The boomers are moving into cities and holding onto their cars, at least for now. Millennials’ income and debt levels restrict their buying power and reduce their brand loyalty. The boomers and millennials share one interest, however: They already like mobility-on-demand services. We think they’re going to turn into love.

[Statistical data chart]

Focus group results

Source: KPMG focus groups and analysis
The clockspeed dilemma

What does it mean for automotive innovation?

Consumers want one trillion miles of more mobility

In previous papers, we described how innovations in autonomous vehicles, connectivity, and mobility-on-demand are affecting consumer behavior and creating new unmet consumer needs. We haven’t changed our perspective. Those innovations are producing changes in consumer behavior that lead them toward the Sexy Dynamic Experience, creating the faster clockspeeds that the auto industry must satisfy—especially when it comes to mobility options.

One thing is different, however: We are floored by how much the pace of change has accelerated in just one year. When we look at focus groups and our modeling, we understand why.

Two roads to the same place: An increasing desire for mobility options

Two generations will largely drive consumer demand in the future, the millennials and the “baby boomers plus”—those ranging in age from 46 to 75 years. Both groups are changing their behaviors but in widely different ways. The boomers are moving into cities and holding onto their cars, at least for now. Millennials’ income and debt levels restrict their buying power and reduce their brand loyalty. The boomers and millennials share one interest, however: They already like mobility-on-demand services. We think their like is going to turn into love.

Focus group results

Overall, 79% of people asked in focus groups would want mobility options for seniors.

79%

Source: KPMG focus groups and analysis
The clockspeed dilemma

What does it mean for automotive innovation?
So delicately interwoven are the relationships that when we disturb one thread of the community fabric we alter it all.

— Rachel Carson
Find and review the

Blueprint for Autonomous Urbanism

check Tamika Butler’s talk—including for timing.
So delicately interwoven are the relationships that when we disturb one thread of the community fabric we alter it all.

We have a legacy of caring more about moving vehicles than about moving people.

That’s a dangerous legacy to be carrying as we begin to consider autonomous systems. Because with this mentality, we’ll be thinking that autonomy is a value we want for our vehicles.

Not autonomous vehicles, but autonomous people.
Technology is not neutral.
- When you hear the words “data driven,” be skeptical.
- *Everything* is data driven.
- Data are not neutral. Which data? Which perspective? What do the data mean?
Carson: Mastery is the wrong objective.

- Exterminating insect “pests” = exterminating congestion.

- Unwinnable wars.
Cities are survivors of colonialism.

Steve Biko

- abuse
- abuse stories
-- every case of abuse has a story that justifies it
-- Steve Biko: “The most powerful weapon in the hands of the oppressor is the mind of the oppressed”
-- urban consciousness vs suburban consciousness
-- Black Skin, White Masks = Urban faces, suburban masks
Standards

NACTO Urban Design Guides
AASHTO Green Book
QUESTION STANDARDS: that’s why I grew up drinking too much milk
Woodson: History is a trajectory.

The trajectory is changeable.

But to change the future you must change the past.

Quote Kisner on the status quo
abuse
1. What, and whom, are streets for?

2. The evolving role of streets in society, and the evolution in how much space society allocates to various uses in the street (cars, bikes, people, deliveries, public spaces, etc)

3. The evolving social norms around traffic violence, and how today's Vision Zero fits into that narrative arc

4. People-oriented design

5. AVs as a useful tool, not a cure-all (new tech won't solve social problems without policy alongside it)

6. Streets as protest and free speech spaces, especially in the past year

7. Traffic violence and streets as protest spaces - intersecting issues in Charlottesville, especially

8. History as a key to the future.
1. History is a trajectory

You all want a different future.

But you’re going to need a different past

Corinne Kisner: “There’s a very entrenched status quo.”