

FTC PrivacyCon
January 14, 2016
Segment 2
Transcript

>> PLEASE STAND BY.

>> OK.

EVERYONE, PLEASE TAKE YOUR

SEATS.

WE'RE ABOUT TO GET STARTED WITH

THE NEXT SESSION.

>> GOOD MORNING.

I'M CHRIS, AN ATTORNEY NOTICE

PRIVACY AND IDENTITY WITHIN THE

FTC BUREAU OF PROTECTION.

I'M HERE TO INTRODUCE THE SECOND

SESSION, ON CONSUMERS' PRIVACY

EXPECTATIONS.

WE WILL HEAR FROM SIX

RESEARCHERS AND FOUR 15-MINUTE

PRESENTATIONS AND THEN WE WILL

CONCLUDE WITH ABOUT 20 MINUTES

OF DISCUSSION, WHERE WE WILL

IDENTIFY COMMON THEMES AND ASK

THE PRESENTERS ABOUT THEIR WORK

AND IMPLICATIONS.

WOULD YOU LET FURTHER ADO I WILL
INTRODUCE SERGE ELELMAN OF THE
SCIENCE INSTITUTE AT THE
UNIVERSITY OF CALIFORNIA AT
BERKELEY.

SERGE ELELMAN WILL START US OFF
WITH HIS PRESENCE ON ANDROID
PERMISSIONS.

>> THANK YOU FOR THIS
INTRODUCTION.

THIS IS WORK I HAVE BEEN DOING
WITH SEVERAL STUDENTS RECENTLY
WHERE WE HAVE BEEN LOOK AT
PRIVACY AND HOW PRIVATE
INFORMATION IS REGULATED ON
MOBILE PLATFORMS.

SO TO GIVE YOU, I GUESS, A BRIEF
OVERVIEW.

MOST OF THIS WORK IS ON ANDROID
AND THAT'S ONLY BECAUSE ANDROID
HAS A PRETTY INTRICATE
PERMISSION SYSTEM TO IMPLEMENT
NOTICE AND CHOICE.

SO WHENEVER AN APPLICATION REQUESTS ACCESS TO CERTAIN SENSITIVE DATA, IT'S REGULATED BY THIS PERMISSION SYSTEM, SO WHEN USERS INSTALL AN APPLICATION THEY SEE A SCREEN THAT INFORMS THEM OF ALL OF THE POSSIBLE TYPES OF SENSITIVE DATA THAT THAT APPLICATION MIGHT BE REQUESTING IN THE FUTURE.

SO THE QUESTION WAS, DOES THIS ACTUALLY IMPLEMENT EFFECTIVE NOTICE AND CHOICE?

SO DO USERS UNDERSTAND THESE MESSAGES ABOUT HOW APPLICATIONS COULD BE USING THEIR DATA IN THE FUTURE?

SO WE STARTED THIS PROJECT A COUPLE OF YEARS AGO BY DOING AN ONLINE SURVEY.

WE HAD OVER 300 ANDROID USERS, AND WE JUST SHOWED THEM SCREENSHOTS OF THESE PERMISSION

SCREENS AND SIMPLY ASKED THEM IF AN APPLICATION, YOU KNOW, WERE GRANTED, WAS GRANTED THESE ABILITIES WHAT MIGHT THAT ALLOW THE APPLICATION TO DO?

WE THEN FOLLOWED THAT UP WITH A QUALITATIVE STUDY WHERE WE HAD 24 PEOPLE COME TO OUR LABORATORY AND WE INTERVIEWED THEM ABOUT SIMILAR CONCEPTS.

AND WHAT WE CONCLUDED FROM THIS WAS THAT MANY PEOPLE WERE SIMPLY HABITUATED SINCE THESE APPEAR AFTER TIME PEOPLE INSTALL APPLICATIONS NOT ONLY DOES IT LIST WHAT ABILITIES AND TYPES OF SENSITIVE DATA THAT APPLICATION IS REQUESTING IN THE FUTURE, BUT ALL OF THE POSSIBLE TYPES THAT IT COULD REQUEST, EVEN IF THE APPLICATION NEVER TAKES ADVANTAGE OF THAT, AND SO PEOPLE BECOME HABITUATED.

THEY SEE LOTS OF THESE REQUESTS THAT HAVE LOTS OF DIFFERENT DATA TYPES, SOME OF WHICH THEY DON'T UNDERSTAND, AND THEREFORE, THEY LEARN TO IGNORE THESE BECAUSE THERE'S JUST SO MUCH INFORMATION THERE.

ANOTHER PROBLEM WAS THAT PEOPLE WERE SIMPLY UNAWARE SINCE THIS OCCURRS WHENEVER YOU INSTALL AN APPLICATION, A LOT OF PEOPLE SAID OH, THIS IS JUST PART OF THE LICENSE AGREEMENT, AND WE KNOW THAT WE NEED TO CLICK THROUGH THAT IN ORDER HAD TO CONTINUE INSTALLING THE APPLICATION.

SO MAYBE THIS OCCURS AT THE WRONG TIME IN THE PROCESS.

AND SINCE IT HAPPENS YOU KNOW AFTER THE USER CLICKS INSTALL IT COULD BE THEY'RE ALREADY COMMITTED TO INSTALLING THE

APPLICATION, THERE ARE VARIOUS
COGNITIVE BIASES RELATED TO
THIS, AND SO THEREFORE IT'S
UNLIKELY THEY'RE ACTUALLY
COMPARISON SHOPPING BASED ON
PRIVACY EVEN IF THEY WANTED TO.
AND ANOTHER ISSUE IS THAT
UNDERSTANDING WHETHER A
PARTICULAR APPLICATION IS GOING
TO ACCESS A PARTICULAR TYPE OF
DATA REALLY REQUIRES A GOOD
UNDERSTANDING OF THIS WHOLE
PERMISSION SYSTEM AND WHAT ARE
THE DIFFERENT TYPES OF DATA
THAT ARE REGULATED BY THE
PERMISSION SYSTEMS.
SO YOU KNOW, UNDERSTANDING
WHETHER AN APPLICATION IS
REQUESTING A DATA TYPE REQUIRES
UNDERSTANDING THE WHOLE UNIVERSE
OF DATA TYPES THAT ARE GOVERNED
HERE.
AND SO WE MADE THESE

RECOMMENDATIONS AND, YOU KNOW,
WHAT WE CONCLUDED WAS A LOT OF
THIS COULD BE TAKEN AWAY.
SO TRANSPARENCY IS GREAT AND
NOTICE AND CHOICE IS GOOD BUT
THE PROBLEM IS THAT WHEN PEOPLE
WILL OVERWHELMED BY THE NOTICE
WHICH IS WHAT WE SEE WITH
PRIVACY POLICIES ON WEB SITES,
THEY EVENTUALLY JUST IGNORE IT
ALL BECAUSE THERE'S SO MUCH
INFORMATION.
SO YOU KNOW, WHAT WE FOUND WAS
THAT A MAJORITY OF THESE
PERMISSIONS COULD PROBABLY JUST
BE GRANTED AUTOMATICALLY WITHOUT
SHOWING THE USER LOTS OF
INFORMATION BECAUSE EITHER THE
DANGERS ARE VERY LOW RISK, FOR
INSTANCE, YOU KNOW, CHANGING THE
TIME FOR INSTANCE OR, YOU KNOW,
CAUSING THE DEVICE TO
CAUSING THE DEVICE TO VIBRATE

ARE IRREVERSIBLE.

CHANCES ARE, THE USER CAN FIND
OUT ABOUT IT AND UNDO IT.

YOU KNOW, THERE'S NO LASTING
HARM THEN.

AT THE SAME TIME, THERE'S A FEW
VERY SENSITIVE THINGS, WHICH
BECAUSE OF DOING THIS INSTALL
TIME, THAT'S PROBABLY THE WRONG
TIME DURING THE PROCESS.

THE USER HAS NO CONTEXT ABOUT
HOW THE DATA MIGHT BE USED IN
THE FUTURE, THESE COULD PROBABLY
BE PLACED WITH RUN-TIME
DIALOGUES.

ANOTHER OPEN QUESTION IS, THIS
IS JUST LOOKING AT THE DIFFERENT
ABILITIES AND DATA TYPES THAT
COULD BE REQUESTED BY AN
APPLICATION, WE DIDN'T LOOK AT
HOW FREQUENTLY THESE DATA TYPES
AND ABILITIES ARE USED IN
REALITY.

SO THINGS IMPROVED.

WE DID THIS STUDY TWO, THREE
YEARS AGO IN THE MOST RECENT
VERSIONS OF ANDROID AND IOS.

THEY NOW HAVE A FEW RUN-TIME
DIALOGUES THAT PROMPT THE USER
AT THE TIME THAT AN APPLICATION
WILL FIRST REQUEST ACCESS TO
CERTAIN DATA TYPES.

THE PROBLEM WITH THIS IS -- SO
IT ADDS SOME CONTEXTUAL
INFORMATION.

THE USER IS DOING SOMETHING.

THIS DIALOGUE APPEARS.

YOU KNOW, THEY COULD PROBABLY
USE INFORMATION ABOUT WHAT THEY
WERE DOING TO MAKE A DECISION
ABOUT WHETHER THE REQUEST IS
REASONABLE OR NOT.

SO MAYBE CLICKING A BUTTON TO
FIND THINGS NEAR YOU, IT THEN
WOULD BE EXPECTED AN APPLICATION
WOULD REQUEST ACCESS TO GPS

DATA.

THE PROBLEM WITH THIS IS, IT ONLY APPEARS THE FIRST TIME THAT DATA TYPE IS REQUESTED.

ONCE THIS IS GRANTED, THE USER NEVER SEES THE DIALOGUES AGAIN.

FUTURE ACCESS MIGHT BE UNDER COMPLETELY DIFFERENT CIRCUMSTANCES THAT MIGHT SURPRISE THE USER OR BE REALLY CONCERNING.

SO ANOTHER QUESTION WE HAD IS HOW OFTEN ARE THESE TYPES OF DATA ON MOBILE PLATFORMS REALLY ACCESSED IN PRACTICE?

SO WE PERFORMED ANOTHER STUDY WHERE WE LOOKED AT REAL APPLICATIONS IN THE WILD.

WE INSTRUMENTED THE ANDROID OPERATING SYSTEM SO THAT EVERY TIME ONE OF THESE DATA TYPES IS REQUESTED BY A THIRD PARTY APPLICATION, WE MADE A LOG OF

IT.

THEN WE GAVE THESE INSTRUMENTED
PHONES TO 40 PEOPLE, 36 OF THEM
RETURNED SAID PHONES, AND WE
ENDED UP WITH A PRETTY ROBUST
DATA SET.

EACH TIME ONE OF THESE SENSITIVE
DATA TYPES WAS REQUESTED -- I'M
TALKING ABOUT THINGS LIKE ACCESS
TO THE CONTACT LIST, GPS DATA,
THINGS LIKE THAT.

WE ALSO COLLECTED THINGS ABOUT
WHAT THE USER WAS DOING ON THE
PHONE.

WHETHER THE APPLICATION THAT WAS
REQUESTED THIS DATA WAS VISIBLE
TO THE USER, WHETHER THE
APPLICATION WAS RUNNING IN THE
BACKGROUND.

MAYBE THE SCREEN WAS OFF.

MOST PEOPLE DON'T REALIZE
APPLICATIONS MIGHT NOT BE
VISIBLE TO THE USER AND STILL

ACCESSING DATA ON THE PHONE.

YOU KNOW, CONNECTIVITY,

LOCATION.

WHAT PART OF THE APPLICATION

THEY'RE CURRENTLY VIEWING, SO

WHAT EYE ELEMENTS WERE EXPOSED

MIGHT YIELD INFORMATION WHETHER

THIS ACCESS TO DATA WAS EXPECTED

OR NOT AND HISTORY TO OTHER

APPLICATIONS.

WE LET PEOPLE USE THE PHONES

ABOUT A WEEK.

WE TRANSFERRED ACTUAL REAL DATA

ON THEM.

THEY'RE USING THEM AS THEY WOULD

THEIR NORMAL PHONES.

THEY POPPED THEIR SIM CARDS INTO

THEM.

AT THE END OF THE WEEK, THEY

CAME BACK TO OUR LAB AND WE GAVE

THEM QUESTIONNAIRES.

WE SHOWED THEM SCREEN SHOTS THAT

OCCURRED DURING THE COURSE OF

THE WEEK AND THEN ASKED THEM
QUESTIONS.

SO THE SCREEN SHOTS WERE TAKEN
RANDOMLY WHENEVER ONE OF THESE
SENSITIVE DATA TYPES WAS
ACCESSED SO WE CAN ASK THEM, YOU
KNOW, AS A PROMPT, YOU WERE
DOING SOMETHING, THIS IS WHAT
YOU WERE DOING ON THE SCREEN OF
YOUR PHONE.

IT WAS REQUESTING THIS
PARTICULAR TYPE OF DATA.

IS THAT -- WAS THAT EXPECTED?

DID YOU EXPECT THAT APPLICATION
TO BE REQUESTING THAT PARTICULAR
DATA TYPE AT THIS MOMENT IN
TIME, AND ALSO IF YOU WERE GIVEN
THE ABLE TIP TO, WOULD YOU HAVE
PRESENTED THAT FROM HAPPENING.

SO THEN WE USE THAT AS GROUND
TRUTH TO SEE WHETHER WE COULD
PREDICT WHETHER A USER WOULD
HAVE WANTED THAT DATA TO BE

ACCESSED BY THE APPLICATION OR
NOT.

SO THIS RESULTED IN -- WE HAD 36
PEOPLE PARTICIPATE.

WE HAD OVER 6,000 HOURS OF
REAL-TIME USAGE.

DURING THAT ONE WEEK PERIOD WITH
36 PEOPLE, WE FOUND 27 MILLION
REQUESTS FOR SENSITIVE DATA THAT
WAS PROTECTED BY THIS PERMISSION
SYSTEM.

SO SOME OF THE PROBLEMS THAT WE
FOUND WERE DUE TO INCORRECT
MENTAL MODELS.

SO AGAIN, THE GOAL OF THIS IS
TRANSPARENCY.

SHOW THE USER, YOU KNOW, ALL THE
POSSIBLE WAYS THAT AN
APPLICATION MIGHT BE ACCESSING
SENSITIVE DATA.

IS IT WORKING.

IN 75% OF THE CASES, ONE OF THE
APPLICATIONS REQUESTING THE DATA

TYPES IS INVISIBLE TO THE USER.

THIS WAS DUE TO THE SCREEN BEING
OFF IN 60% OF THE CASES.

SO APPLICATIONS RUNNING, THE
USER WASN'T USING THEIR PHONE,
OR YOU KNOW, BACKGROUND
SERVICES.

ANOTHER THING THAT WE FOUND WAS,
YOU KNOW, DESPITE THE FACT
THERE'S SOME PRIVACY INDICATORS
BUILT INTO THE OPERATING SYSTEM.

SO BOTH ANDROID AND IOS HAVE
INDICATORS FOR WHEN GPS IS
ACCESSED.

THIS IS AN EXAMPLE OF ONE OF
THOSE INDICATORS.

IT APPEARS IN THE TOP STATUS
BAR.

MOST PEOPLE ASSUME THAT THE ONLY
TIME THAT GPS INFORMATION IS
COLLECTED, THIS ICON WILL
APPEAR.

IT TURNS OUT, THAT'S NOT TRUE AT

ALL.

THE ICON APPEARS IN .04% OF THE
CASES WHERE LOCATION DATA WAS
ACCESSED.

THAT'S BECAUSE EVERY TIME AN
APPLICATION REQUESTS LOCATION
DATA, THE OPERATING SYSTEM
CACHES THAT FOR PERFORMANCE
REASONS AND TO PRESERVE BATTERY
LIFE.

WHEN ANOTHER APPLICATIONS
ACCESSES THE CACHE LOCATION AS
OPPOSED TO QUERYING THE GPS
HARDWARE, THIS NEVER APPEARS.
APPLICATIONS CAN INFER LOCATION
BASED ON CELLULAR NETWORK DATA,
WI FI HOT SPOTS.

SO MOST OF THE TIME WHEN
LOCATION DATA IS COLLECTED,
PEOPLE HAVE NO INDICATION THAT
THAT'S OCCURRING.

SO, YOU KNOW, WHAT IF -- SO
HAVING TO NOTICE AND CHOICE AT

THE BEGINNING WHEN USERS INSTALL
THE APPLICATION OBVIOUSLY
DOESN'T WORK.

WE'VE TESTED THAT.

THE ASK ON FIRST USE THAT IS
CURRENTLY HAPPENING ISN'T REALLY
WORKING BECAUSE OF THE DIFFERENT
CONTEXTS IN WHICH USERS MIGHT BE
INTERACTING WITH APPLICATIONS.

MAYBE WE CAN HAVE RUN-TIME
REQUESTS ALL THE TIME.

SO APPLICATIONS REQUEST DATA.

WE CAN HAVE A NOTICE APPEAR.

THAT'S IMPRACTICAL, TOO.

SO THE 27 MILLION DATA POINTS
THAT WE COLLECTED, THAT WILL
RESULT IN PER PERSON ABOUT 200
POP-UPS PER HOUR.

MOST OF WHICH IS DUE TO REQUEST
FOR LOCATION DATA.

BUT YOU CAN SEE THERE'S OTHER
DATA TYPES THAT WERE FREQUENTLY
REQUESTED.

SO HAVING LOTS OF POP-UPS APPEAR
ON THE PHONE IS NOT REALLY A
GOOD WAY OF GOING FORWARD EITHER
THAT WILL LEAD TO HABITUATION.

THE VAST MAJORITY OF
PARTICIPANTS SAID THEY WOULD
DENY AT LEAST ONE OF THESE

REQUESTS.

ON AVERAGE, THEY WOULD DENY A
THIRD OF THE REQUESTS.

HOW DO WE GIVE USERS CONTROL
OVER THE THINGS THEY CARE ABOUT
WITHOUT OVERWHELMING THEM?

WE'RE DOING WORK TO TRY TO
PREDICT THE CASES WHERE
APPLICATIONS ACCESS DATA WHERE
PEOPLE WOULD WANT TO KNOW THIS
IS OCCURRING WHEREAS THE OTHER
ONES WHERE APPLICATIONS ACCESS
DATA THAT MIGHT BE EXPECTED,
WELL, WE SHOULDN'T PROMPT THE
USER IN THOSE CASES.

SO WHAT WE FOUND IS THAT
EXPECTATIONS REALLY DID PREDICT
BEHAVIOR IN THIS CASE.

WE ASKED PEOPLE IF THIS ACCESS
TO PERSONAL DATA WAS EXPECTED OR
NOT.

AND THEN WHETHER THEY WOULD HAVE
BLOCKED IT.

THERE WAS A STRONG CORRELATION
THERE.

WE ALSO FOUND THAT IF USING THE
CURRENT MODEL ON ASK ON FIRST
USE.

SO IF YOU LOOK AT FOR EACH
UNIQUE APPLICATION, IN EACH
UNIQUE DATA TYPE, IF YOU ASK
USERS THE FIRST TIME THE
APPLICATION REQUESTS THE DATA,
WE'RE GOING TO GET IT RIGHT
ABOUT 50% OF THE TIME, WHICH IS
WHAT IS HAPPENING.

THAT'S A COIN FLIP.

WE FOUND THAT LOOKING AT THE

VISIBILITY OF THE APPLICATION

WAS A STRONG PREDICTOR OF USER
EXPECTATIONS.

SO APPLICATIONS RUNNING IN THE
BACKGROUND ASKING DATA WERE --
OFTEN THOSE WERE UNEXPECTED.

IF WE ADD THAT TO THE EQUATION,
WE CAN GET THIS RIGHT ABOUT 80%
OF THE TIME.

SO INSTEAD OF ASKING ON THE
FIRST USE, WE COULD ASK THE
FIRST TIME THAT THE APPLICATION
REQUESTS THE DATA IN THE
FOREGROUND AND ASK THE FIRST
TIME ASKS THE APPLICATION
REQUESTS THE INFORMATION IN THE
BACKGROUND AND THEN WE GET IT
RIGHT 80% OF THE TIME.

THE DATA WAS NUANCED.

LOOKING AT ONE USER'S
PREFERENCES COMPARED TO ANOTHER
DIDN'T WORK AMONG OUR 36
PARTICIPANTS.

THERE'S SO MUCH DATA WITH REGARD
TO WHAT PEOPLE WANTED AND WHAT
THEIR EXPECTATIONS WERE, WHICH
SUGGESTED THAT HAVING A ONE SIZE
FITS ALL SOLUTION ABOUT WHAT
PEOPLE CARE ABOUT AND WHAT
SHOULD THEY BE SHOWN IS UNLIKELY
TO WORK EITHER.

SO MAYBE WE NEED MORE
INTELLIGENCE SYSTEMS THAT CAN
PREDICT USER PREFERENCES ON A
PER-USER BASIS.

SO GOING FORWARD WE'RE TRYING TO
IMPLEMENT THE SYSTEMS RIGHT NOW
THAT CAN PREDICT A GIVEN USER'S
PREFERENCES BASED ON THEIR
PREVIOUS BEHAVIORS.

AND YOU KNOW, THIS IS PART OF A
PRETTY COMPLEX ECOSYSTEM.

WE HAVE WHAT WE CALL HARD
POLICY, WHICH IS PREFERENCES
THAT PEOPLE HAVE EXPLICITLY
STATED.

I DON'T WANT APPLICATIONS TO BE
USING DATA FOR X REASON AND
TRYING TO AUGMENT THAT WITH SOFT
POLICIES.

SO INFERRED PREFERENCES THAT
SYSTEMS CAN MAKE UP ABOUT USERS
LIKE LOOKING AT, YOU KNOW,
HUNDREDS OF THOUSANDS OR
MILLIONS OF USERS, WE CAN INFER
ONE USER'S PREFERENCES BASED ON
OTHER USERS LIKE THEM, LIKE
RECOMMENDED SYSTEMS.

BASED ON THE FEEDBACK FROM
PROMPTS.

SO IF WE CAN DESIGN MORE
EFFICIENT PROMPTS THAT, YOU
KNOW, CATER TO INDIVIDUAL USER
EXPECTATIONS, WE CAN USE THE
OUTPUT OF THOSE.

WHAT DID THE USER DECIDE TO
ENSURE THAT THEY SEE FEWER
PROMPTS IN THE FUTURE.

THAT'S IT.

I'LL LEAVE IT AT THAT.

SO -- WELL, THE CONCLUSION IS,
YOU KNOW, NOTICE IN CHOICE IS
GREAT.

THE PROBLEM IS FIGURING OUT WHAT
NOTICE TO GIVE PEOPLE SINCE
ATTENTION IS A PLANET RESOURCE.

SO I'LL LEAVE IT AT THAT.

[APPLAUSE]

>> THANK YOU, SERGE.

NOW WE'LL HEAR FROM ASHWINI RAO
ABOUT PRIVY EXPECTATIONS ONLINE.

>> THANK YOU.

SO YEAH, MY TALK IS ABOUT
EXPECTING THE UNEXPECTED,
UNDERSTANDING THE MISMATCHED
PRIVACY EXPECTATIONS ONLINE.

START WITH MOTIVATION.

SO MANY OFFICES ON A DAILY BASIS
INTERACT WITH ONLINE WEBSITES.

AS WE INTERACT WITH ONLINE
WEBSITES, WE MAY HAVE QUESTIONS
LIKE WHAT TYPE OF DATA DOES THIS

WEBSITE COLLECT ABOUT ME, HOW DOES IT SHARE THIS DATA AND DOES IT ALLOW DELETION OF THIS DATA? TO ANSWER THESE QUESTIONS, A USER COULD READ THE WEBSITE'S PRIVACY POLICY, WHICH IS USUALLY A TEXTUAL DOCUMENT IN ENGLISH AND IT DISCLOSES THE DATA PRACTICES OF THE WEBSITE LIKE COLLECTION SHARING AND DELETION. THE POLICIES IN THE CURRENT FORM ARE LONG AND DIFFICULT TO READ. SO USERS IGNORE THEM. SO THE MAIN MOTIVATION IS HOW CAN WE HELP USERS UNDERSTAND ONLINE DATA PRACTICES? AND OUR APPROACH IS TO FOCUS ON USER EXPECTATIONS. SO WE ASSUME HERE THAT USERS EXPECT WEBSITES TO ENGAGE IN CERTAIN DATA PRACTICES. FOR EXAMPLE, USERS MAY EXPECT BANKING WEBSITES TO COLLECT

FINANCIAL INFORMATION.

AND HEALTH WEBSITES TO COLLECT

HEALTH INFORMATION.

THESE EXPECTATIONS MAY BE BASED ON

CONTEXT, LIKE THE TYPE OF

WEBSITE, OUR USER

CHARACTERISTICS.

AGE, PRIVACY KNOWLEDGE, PRIVACY

CONCERN.

HOWEVER, USER EXPECTATIONS MAY

NOT MATCH WHAT WEBSITES DO.

EXAMPLES, USERS MAY NOT EXPECT

BANKING WEBSITES TO COLLECT

HEALTH INFORMATION.

NOW, THE QUESTION HERE IS COULD

WE GENERATE EFFECTIVE PRIVACY

NOTICES BY EXTRACTING AND

HIGHLIGHTING THESE DATA

PRACTICES THAT DO NOT MATCH USER

EXPECTATIONS?

SO THE CONCEPT IS SIMPLE.

A PRIVACY NOTICE DOES NOT HAVE

TO INFORM YOU ABOUT THINGS THAT

YOU ALREADY EXPECT OR KNOW.

A PRIVACY NOTICE HAS TO INFORM
YOU ABOUT THING THAT YOU DO NOT
EXPECT OR YOU DO NOT KNOW.

SO I WANT TO MAKE A DISTINCTION
BETWEEN POLICY AND NOTICE.

A POLICY IS USUALLY A TEXT
YOU'LL DOCUMENT.

A NOTICE, WHICH IS BASED ON THE
POLICY IS USUALLY SHORTER AND
MORE USABLE.

SO HERE I'M SHOWING YOU THE
PRIVACY NUTRITION LABEL WHICH
FOCUSED ON VISUAL FORMATS.

SO FAR NOTICES THAT MAKE -- THAT
ARE MORE EFFECTIVE, OUR RESEARCH
HAS FOCUSED ON VISUAL FORMATS.

IN OUR APPROACH OF EXTRACTING
AND HIGHLIGHTS MISMATCHED
EXPECTATIONS IS COMPLEMENTARY TO
THIS APPROACH.

ONCE WE IDENTIFY AND EXTRACT
THESE MISMATCHED EXPECTATIONS,

WE COULD PRESENT THEM TO THE
USER IN ANY VISUAL FORMAT THAT
IS EFFECTIVE.

I ALSO WANT TO SAY HERE THAT
THIS PRIVACY NOTICES DO NOT HAVE
TO BE GENERATED, PROVIDED BY THE
WEBSITE OPERATORS THEMSELVES.

THESE COULD BE OPERATED BY A
THIRD PARTY.

FOR EXAMPLE, THROUGH A BROWSER
PLUG-IN.

THIS IS IMPORTANT TO NOTE.

SO THE MAIN QUESTIONS ARE HOW DO
WE DEFINE EXPECTATION AND HOW DO
WE MEASURE EXPECTATIONS AND
MEASURE MISMATCHES IN THESE
EXPECTATIONS.

SO RESEARCH AND NONPRIVACY
DOMAINS SHOW THAT USERS CAN HAVE
MULTIPLE TYPES OF EXPECTATIONS.

PRIVACY RESEARCH HAS
PREDOMINANTLY NOT FOCUSED ON
MULTIPLE TYPES OF EXPECTATIONS.

SO WE HAVE THE EXPECTATION IN
THE LIKELIHOOD SENSE.

WHAT DOES THE USER EXPECT THAT
THIS WEBSITE WILL DO?

VERSUS WHAT DOES THE USER EXPECT
THE WEBSITE SHOULD DO.

THIS IS IN THE THE DESIRED
SENSE.

WE COMPARE THAT WITH PRACTICES,
DATA PRACTICES OF WEBSITES.

TO MEASURE EXPECTATIONS, WE CAN
CONDUCT USER STUDIES.

SO ONE OF THE USER STUDIES THAT
WE CONDUCTED FOCUSED ON THE
EXPECTATION IN THE LIKELIHOOD
SENSE.

IN FUTURE WE ALSO PLAN TO
MEASURE EXPECTATION IN THE
DESIRED SENSE.

SO WE PRESENT USERS WITH
DIFFERENT TYPES OF WEBSITES
AFTER THE USER HAS INTERACTED
WITH THE WEBSITE, WE ASK WHAT DO

YOU ASSUME THE WEBSITE WILL DO?
ONCE WE ELICITED USER
EXPECTATIONS, WE NEXT EXTRACTED
THE DATA PRACTICES FROM PRIVACY
POLICIES.
THEN WE COMPARE THESE TWO TO
IDENTIFY MISMATCHES.
SO IN A STUDY, WE USED -- WE
VARIED THE WEBSITE CATEGORY
STAKES AND USER CHARACTERISTICS.
AS I MENTIONED EARLIER, USER
EXPECTATIONS CAN VARY BASED ON
THESE WEBSITE AND USER
CHARACTERISTICS.
WE LOOKED AT 17 DIFFERENT DATA
PRACTICES, WHICH WAS SPLIT AMONG
COLLECTION, SHARING AND
DELETION.
FOR COLLECTION SHARING, WE
LOOKED AT FOUR DIFFERENT TYPES
OF DATA.
CONTACT INFORMATION, FINANCIAL,
HEALTH AND CURRENT FINANCIAL

INFORMATION.

SO HERE'S AN EXAMPLE SCENARIO.

SO HERE THE SCENARIO IS

DESCRIBING THE COLLECTION OF

DIFFERENT TYPES OF DATA WHEN THE

USER DOES NOT HAVE AN ACCOUNT ON

THE WEBSITE.

SO YOU CAN SEE WE'RE ASKING THE

USER, WHAT IS THE LIKELIHOOD

THAT THIS WEBSITE WILL COLLECT

YOUR CONTACT INFORMATION.

SO IN FUTURE, IF WE WANTED TO

MEASURE DESIRED EXPECTATIONS, WE

COULD ASK THEM, DO YOU THINK THE

WEBSITE SHOULD BE OR SHOULD NOT

ALLOWED TO COLLECT THIS

INFORMATION IN ADDITION TO DO

YOU THINK IT'S LIKELY THAT THE

WEBSITE WOULD COLLECT YOUR

INFORMATION.

SO WE DEPLOYED THIS STUDY AS AN

ONLINE SURVEY.

WE STUDIED TOTAL 16 WEBSITES,

HAD 240 PARTICIPANTS.

SO THIS WAS THE ELICIT USER

EXPECTATIONS.

THE OTHER PART IS TO EXTRACT

DATA PRACTICES FROM PRIVACY

POLICIES.

TO TO THIS, WE USE TWO

ANNOTATORS.

WE HAD THEM ANSWER QUESTIONS

LIKE DOES THIS POLICY DISCLOSE

THAT THE WEBSITE COLLECTS HEALTH

INFORMATION.

NOW, TO SCALE UP, WE ARE ALSO

DEVELOPING TECHNIQUES THAT ARE

SEMI AUTOMATED AND USE NATURAL

LANGUAGE PROCESSING AND MACHINE

LEARNING THAT CAN GO AND EXTRACT

ANSWERS TO THESE QUESTIONS.

SO THE ANNOTATIONS SAY THE

WEBSITE IS CLEAR, WHETHER IT

ENGAGES IN A CERTAIN PRACTICE,

WHETHER IT'S UNCLEAR, THE POLICY

DOES NOT ENGAGE IN A CERTAIN

PRACTICE.

NOW, IT'S IMPORTANT TO NOTE THAT THERE CAN BE DIFFERENT TYPES OF MISMATCHES.

I'M SHOWING YOU TWO.

THE YES-NO MISMATCH.

THE WEBSITE SESSION THAT YES, WE COLLECT YOUR INFORMATION, BUT THE USER THINKS NO, THE WEBSITE IS NOT COLLECTING MY INFORMATION.

SO IN THIS CASE, THE USER MAY GO AHEAD AND ACTUALLY USE THE WEBSITE AND UNKNOWINGLY GIVE UP DATA.

LOSE PRIVACY.

AS IN THE NO-YES MISMATCH, THE WEBSITE SAYS NO, WE DON'T COLLECT YOUR INFORMATION BUT THE USER THINKS INDEED, THE WEBSITE IS COLLECTING MY INFORMATION.

IN THIS CASE, THE USER MAY DECIDE NOT TO USE THE WEBSITE.

IN WHICH CASE, THE USER MAY USE
UTILITY BUT NOT PRIVACY.

SO SOME RESULTS -- SO WE LOOKED
AT DIFFERENT WEBSITE
CHARACTERISTICS.

THE TYPE THAT IMPACTED USER
EXPECTATIONS ONLY FOR FINANCIAL
AND HEALTH INFORMATION BUT NOT
FOR CONTACT INFORMATION AND
LOCATION.

SEVERAL USER CHARACTERISTICS HAD
A SIGNIFICANT IMPACT ON WHAT
USERS EXPECTED.

SO FOR EXAMPLE, USER'S AGE
IMPACTED WHETHER THEY EXPECT
WEBSITES TO ALLOW DELETION OF
DATA.

SO NOW HERE I PRESENT TWO
EXAMPLES OF MISMATCHES THAT WE
FOUND.

THIS IS A MISMATCH IN COLLECTION
DATA PRACTICE AND THIS IS AN
EXAMPLE OF A YES-NO MISMATCH.

SO WEBSITES CAN COLLECT USERS' INFORMATION OBVIOUS WHEN THEY DON'T HAVE AN ACCOUNT. HOWEVER, USERS DON'T THINK THAT THAT HAPPENS. OR THEY DO NOT EXPECT THE DATA PRACTICE. SO COMPARE THIS WITH NO-YES MISMATCH. THIS IS A MISMATCH IN SHARING DATA PRACTICE. USERS EXPECT THAT WEBSITES WILL SHARE THEIR CONTACT INFORMATION FOR ANY PURPOSE. HOWEVER, WEBSITES DO NOT DO SO. THEY ONLY SHARE CONTACT INFORMATION FOR A SPECIFIED AND VERY NARROW PURPOSE. SO AS WE GO THROUGH DELETION, USERS PREDOMINANTLY EXPECT DELETION OF COLLECTED DATA, BUT WEBSITES GENERALLY DO NOT ALLOW THAT.

SO THERE CAN BE OTHER TYPES OF
MISMATCHES AS WELL.

ONE EXAMPLE IS A WEBSITE
SPECIFIC MISMATCH.

FOR EXAMPLE, USERS DO NOT EXPECT
BANKING WEBSITES TO COLLECT
HEALTH INFORMATION.

MOST OF THE BANKING WEBSITES WE
LOOKED AT DO NOT DO SO.

HOWEVER, THEY CAN BE SPECIFIC
WEBSITES, FOR EXAMPLE, BANK OF
AMERICA WHICH IS ONE OF THE
WEBSITES WE LOOKED AT THAT
INDEED COLLECT HEALTH
INFORMATION.

SO YOU CAN SEE THIS IS A
MISMATCH SPECIFIC TO CERTAIN
WEBSITES.

SO BASED ON THE RESULTS OFF OF
THE STUDY, WE COULD COME UP WITH
NOTICES THAT HAVE LESS AMOUNT OF
INFORMATION THAN A FULL NOTICE.

FOR EXAMPLE, WE LOOKED AT 17

DATA PRACTICES.

NOTICE THEY SHOWED INFORMATION
ABOUT ALL 17 DATA PRACTICES.

OR WE COULD SHOW INFORMATION
ABOUT DATA PRACTICES WHERE
THERE'S A MISMATCH BETWEEN WHAT
USERS EXPECT AND WHAT WEBSITES
DO OR ACTUAL DATA PRACTICES OF
WEBSITES.

THERE WERE MISMATCHES FOR 8 OUT
OF THE 17.

IF YOU SHOW 11, THAT WOULD BE
ABOUT 35% REDUCTION IN THE
AMOUNT OF INFORMATION THAT THE
USER HAS TO READ AND PROCESS.

WE COULD ALSO JUST SHOW
INFORMATION ABOUT MISMATCHES
THAT MORE PRIVACY INVASIVE FROM
A USER STANDPOINT.

I TALKED ABOUT THE YES-NO
MISMATCH VERSUS THE NO-YES.
IN THE CASE OF BANK OF AMERICA,
IT'S ONLY FIVE DATA PRACTICES

FOR WHERE THERE'S A YES-NO
MISMATCH.

THAT WOULD BE 70% AMOUNT OF
REDUCTION FOR THE AMOUNT OF
INFORMATION SHOWN IN THE NOTICE.

THE CAVEAT HERE IS THAT WE DO
HAVE TO GO AHEAD AND TEST WITH
USERS HOW EFFECTIVE THE SHORTSER
NOTICES WILL BE.

YEAH.

SO AS PART OF FUTURE WORK, WE'RE
PLANNING TO ALSO STUDY
EXPECTATIONS IN THE DESIRED
SENSE AND COMPARE THAT WITH
EXPECTATIONS IN THE LIKELIHOOD
SENSE AND MAKE -- ALSO COMPARE
BOTH OF THEM TO DATA PRACTICES
OF WEBSITES.

AS I MENTIONED, WE'RE TESTING
EFFECTIVENESS OF NOTICES THAT
HIGHLIGHT MISMATCHED
EXPECTATIONS AND SEE WHETHER THE
USERS CAN MAKE BETTER PRIVACY

DECISIONS.

THAT WAS ALL.

THANK YOU.

[APPLAUSE]

>> THANK YOU, ASHWINI.

NEXT WE'LL HEAR FROM

CO-PRESENTERS HEATHER

SHOENBERGER FROM THE UNIVERSITY

OF OREGON AND JASMINE McNEALY

FROM THE UNIVERSITY OF FLORIDA.

THEY'LL BE PRESENTS ON CONSUMER

STANDARDS IN THE DIGITAL

CONTEXT.

>> SO GOOD MORNING.

THANK YOU FOR HAVING US.

OUR PROJECT IS ONLINE OR OFF

LINE VERSUS ONLINE, REEXAMINING

THE REASONABLE CONSUMER STANDARD

IN THE DIGITAL CONTEXT.

THE IMPETUS FOR THE PROJECT IS

TO GET A DEEPER UNDERSTANDING OF

HOW CONSUMERS ACT ONLINE.

WE KNOW FROM PRIOR LITERATURE

THAT PEOPLE, INDIVIDUALS ACT
DIFFERENTLY SUPPOSEDLY OFF LINE
THAN THEY DO ONLINE.

SO WE WANTED TO TAKE THIS INTO A
FURTHER EXPLORATION OF
CONSUMERS.

WE KNOW THE REASONABLENESS
STANDARD IS A STANDARD THAT IS
USED IN -- FOR REGULATORS, FOR
EXAMPLE, IN ASSESSING COMPLAINTS
RELATED TO DECEPTION.

WE WANTED TO FIND OUT MORE AND
EXPLORE THIS A BIT MORE.

SO WE CAME UP WITH A UMBRELLA
PROJECT THAT USED MIXED METHODS
TO EXAMINE THIS QUESTION.

ONE OF THE FIRST THINGS WE DID
IS START TO INTERVIEW.

SO WE DID QUALITATIVE
INTERVIEWS.

JUST TO SKIP FORWARD A LITTLE,
THAT WE ASKED OUR INTERVIEWEES
QUESTIONS RELATED TO HOW THEY

BEHAVE BOTH ONLINE AND OFFLINE.

WE HAVE THIS QUOTE FROM AN INTERVIEWEE WHERE WE ASKED QUESTIONS RELATED TO THEIR EXPECTATIONS RELATED TO PRIVACY OR HOW THEIR INFORMATION WOULD BE USED AND HOW THEY ATTEMPTED TO CONTROL THEIR INFORMATION.

SO WE ASKED ABOUT WHETHER OR NOT THEY SHOWED PHOTOS OFFLINE, IF THEY JUST MET A PERSON.

SO IT'S A STRANGER.

THEY INVITE THEM INTO THEIR HOME AND THEY BREAK OUT THEIR FAMILY PHOTO ALBUM.

WE ASKED ABOUT THAT.

THE INTERVIEWEE SAID, YOU KNOW, I'D WAIT FOR A FRIENDSHIP TO DEVELOP OFFLINE BEFORE SHOWING ANY PHOTOS TO SOMEONE IN PERSON. THIS SEEMS ALMOST DIAMETRICALLY OPPOSED TO WHAT THEY DO WHEN THEY PARTICIPATE ON, SAY,

FACEBOOK OR INSTAGRAM, RIGHT?
MORE IMPORTANTLY JUST -- THAN
JUST SHOWING PHOTOS, WE ASKED
SOME QUESTION ABOUT WHETHER OR
NOT THEY WOULD SIGN A PRINTED
CONTRACT WITHOUT ACTUALLY
READING THE TERMS OF THE
CONTRACT VERSUS WHETHER OR NOT
THEY CLICK -- ALWAYS CHECK YES
OR NO TO THE TERMS AND
CONDITIONS OF USING VARIOUS
WEBSITES, WHETHER IT'S SOCIAL
MEDIA OR SHOPPING OR WHOEVER THE
CASE MAY BE.
SO WE WANTED TO FIND OUT.
WE NOTED THAT THERE WAS SOME
SIGNIFICANT DIFFERENCES
INDICATED WITH RESPECT TO THEIR
SHARING BEHAVIORS BOTH ONLINE
AND OFFLINE.
SO TO DO BACK A LITTLE MORE
ABOUT OUR METHODS.
JUST SOME BREAK DOWNS FOR OUR

INTERVIEWS.

WE HAD 30 PARTICIPANTS.

WE DID THESE LONG FORM

QUALIFIEDTATIVE INTERVIEWS.

WE HAD 20 WOMEN TO MEN.

THE AVERAGE AGE WAS 26.

WE HAVE SOME RACIAL DEMOGRAPHIC

DATA BROKEN DOWN AS WELL.

FOR OUR QUANTITATIVE SIDE, WE

DID A SURVEY.

WE'LL TALK MORE ABOUT THE

RESULTS OF THE SURVEY TODAY.

THERE WERE 871 PARTICIPANTS.

ALMOST EQUAL BREAKDOWN BETWEEN

MEN AND WOMAN.

BUT NOTE THE AGE.

WE HAD AN AGE OF 35.9.

SO ALMOST A TEN-YEAR AGE

DIFFERENCE ON THE SURVEY.

THE QUALITATIVE SIDE.

AGAIN, THE BREAKDOWN OF RACIAL

DEMOGRAPHICS.

ALSO IMPORTANT ARE SOME OF THE

VARIABLES THAT WE USED.

SO WE ATTEMPTED TO MEASURE IN
OUR SURVEY.

THE VARIABLES WE GOT FROM PRIOR
LITERATURE.

THEY ALSO EMERGED AGAIN WHEN WE
WERE DOING OUR QUALITATIVE
INTERVIEWS.

ONE OF THOSE IMPORTANT ONES IS
SOCIAL TRUST.

IT WAS MEASURED ON A SIX-ITEM
SCALE.

SOCIAL TRUST IS ASKING THE
PARTICIPANTS, YOU KNOW, HOW THEY
FELT ABOUT WHETHER OR NOT THEY
TRUSTED THAT THE INSTITUTIONS,
THE ENTITIES, BRANDS OR
ADVERTISERS, THE GOVERNMENT,
NEWS MEDIA ALSO, HOW THEY FELT
THAT THEY WOULD -- WHETHER OR
NOT THE ENTITIES WOULD FULFILL
THEIR RESPONSIBILITIES RELATED
TO THE CONSUMERS' PRIVATE

INFORMATION.

SO THOSE ARE EXAMPLE QUESTIONS
ON HERE AS WELL.

AND THEN THE SECOND IMPORTANT
VARIABLE THAT WE ATTEMPTED TO
MEASURE ON A FOUR-ITEM SCALE IS
CONTROL.

OR HOW PARTICIPANTS PERCEIVED
THEY HAD CONTROL OVER THEIR
INFORMATION.

SO EXAMPLE QUESTION WAS I CAN
USE ONLINE PRIVACY TOOLS TO
REMAIN ANONYMOUS ONLINE.

PERHAPS MORE IMPORTANTLY, THE
MAIN DEPENDENT VARIABLES.

SO WE HAD TO ALWAYS CLICK YES.

SO AGAIN, WE'RE ASSESSING
BEHAVIOR.

WHETHER OR NOT THE PARTICIPANT
ALWAYS CHOSE TO CLICK YES
RELATED TO PRIVACY POLICIES OR
TERMS AND CONDITIONS ONLINE.

THE SECOND ONE WAS PRIVACY

CONCERN.

WE MEASURED ON A THREE-ITEM SCALE ABOUT WHETHER DATA COMPANIES, WHETHER THEY THOUGHT THE DATA COMPANIES WOULD COLLECT INFORMATION THAT WOULD MAKE THEM UNCOMFORTABLE.

HEATHER WILL TALK ABOUT SOME OF THE RELATIONSHIPS WE FOUND.

>> RIGHT.

SO WE DIVERGE HERE WHERE WE'RE POSITIVE ABOUT OUR FINDINGS, AND ALSO I WANTED TO NOTE -- I'LL GET TO THAT IN A SECOND.

ALWAYS CLICKING YES VARIABLE WAS OUR INDICATION OF BEHAVIOR.

THIS MADE IT VERY SIMPLIFIED FOR THIS BECAUSE WE'RE UNDER A TIME LIMIT.

THE FIRST BLOCK WAS DEMOGRAPHICS.

THE ONLY DEMOGRAPHIC IN THIS PARTICULAR EQUATION THAT WAS

SIGNIFICANT WAS AGE.

THAT'S NO SURPRISE THAT IT'S
YOUNGER PEOPLE THAT PREDICTED
ALWAYS CLICKING YES.

WE'VE SEEN THIS IN NUMEROUS
REPORTS WHERE YOUNGER PEOPLE ARE
MORE CARELESS ONLINE, MAYBE MORE
APATHETIC.

AND WE HAD TWO SURVEYS THAT CAME
UP THAT HAVE ALSO BEEN USED IN
STUDIES BEFORE OURS AND SOCIAL
TRUST IN THIS CASE WAS NOT A
PREDICTOR BUT CONTROL EFFICACY
WAS.

THE BELIEF THAT THEY CONTROLLED
THEIR DATA PREDICTED ALWAYS
CLICKING YES.

WE BELIEVE THIS IS THE RESULTS
OF THE CONFIDENCE THAT PEOPLE
HAVE IF THEY BELIEVE THEY HAVE
CONTROL.

AS A RESULT THEY SAY, SURE
ENOUGH, I'M GOING TO GO AHEAD

AND CLICK YES BECAUSE I'M
CONFIDENT AND TRUST THIS IS
GOING TO WORK OUT FOR ME.
THOSE -- SO THE NEXT BLOCK WERE
ALL ITEMS THAT WERE DERIVED FROM
OUR INTERVIEWS.
OF COURSE, SOME OF THEM YOU'VE
SEEN IN PREVIOUS STUDIES AS
WELL.
ALL OF THEM WERE DERIVED FROM
INTERVIEWS.
NEGATIVE EXPERIENCES.
SELF-EXPLANATORY WERE MORE
LIKELY TO CLICK YES WITHOUT
READING ANY TERMS OF THE
AGREEMENT.
NO FURTHER INVESTIGATION.
PEER RECOMMENDATIONS.
WE WERE HOPEFUL A PURE
RECOMMENDATION WOULD BE AND
IF-THEN RULE.
THAT WAS NOT THE CASE IN OUR
REGRESSION ANALYSIS.

IT WASN'T SIGNIFICANT.

CONVENIENCE WAS A BIG VARIABLE

OF ITEMS MADE UP LIKE THE

POLICIES WERE TOO LONG.

IT'S FASTER TO JUST SKIP THEM.

THEY'RE FULL OF LEGALESE.

SOME OF THE INFORMATION WE HEARD

LAST NIGHT ABOUT HOW THE

POLICIES ARE LADEN WITH TOO MUCH

MATERIAL FOR CONSUMERS TO

INGEST, ESPECIALLY IN THE OVER

SATURATED ENVIRONMENTS WITH

JOBS, ET CETERA.

AND THE TWO IMPORTANT VARIABLES

WERE CUES.

ONE WAS SLIGHT APPEARANCE.

IF THE SITE APPEARED TO BE SAFE

AND NOT WEIRD, DIDN'T RAISE ANY

SKEPTICISM.

AGAIN, WE HAVE SEEN THIS IN

PREVIOUS STUDIES.

OUR PARTICIPANTS NOTED THIS IN

THE INTERVIEWS AS WELL.

PREDICTED CLICKING YES IF THE
SITE LOOKED SAFE AND ALSO WAS
FAMILIAR.

AND THEN JUST SIMPLE PRESENCE OF
A PRIVACY POLICY OR AN ICON LIKE
TRUSTEE ALSO PREDICTED CLICKING
YES.

SO THIS WAS OUR BEHAVIOR.

AT THE CONCLUSION OF THIS, WE
THOUGHT WE'RE ON THE RIGHT TRACK
HERE.

THESE CUES ARE WHAT IS DRIVING
THE MOTIVATORS OF ACTUAL
BEHAVIOR ONLINE AND WE'RE REALLY
EXCITED.

THEN WE GOT EVEN MORE EXCITED
FOR OUR PRIVACY CONCERN
VARIABLE.

A VARIABLE HEAVILY RESEARCHED IN
THIS AREA.

MANY RESEARCHERS HAVE NOTED
THE -- THIS PANEL -- THE PANEL
BEFORE US NOTED THERE'S A

DISCONNECT BETWEEN PRIVACY
CONCERN AND ACTUAL BEHAVIOR.

WE MAY HAVE A POTENTIAL TO
BRIDGE THAT WITH THIS RESEARCH.

SO IN THE REGRESSION IS IN THE
SAME FORMAT.

HIGHER AGES AND HIGHER
EDUCATION.

NO SURPRISE.

PREDICTED PRIVACY CONCERN, LOWER
SOCIAL TRUSTS.

PREDICTED PRIVACY CONCERN, LOWER
CONTROL EFFICACY.

BOTH IN LINE WITH PREVIOUS
RESEARCH.

PEOPLE WHO HAD HAD SUFFERED MORE
NEGATIVE EXPERIENCES WERE MORE
LIKELY TO SAY THAT THEY HAD MORE
CONCERN.

CONVENIENCE FELL OUT OF THIS
MODEL AS A RESULT OF THE TWO
CUES AT THE BOTTOM.

THERE ARE DEFINITELY -- WITHIN

THE SAME DIRECTION AS BEFORE.
IF THE SITE HAD POOR AESTHETICS
AND MADE PEOPLE FEEL MORE
SKEPTICAL AND A LACK OF A
PRIVACY POLICY OR A LINK OR AN
ICON PREDICTED PRIVACY CONCERN.
NOTE THAT BOTH OF THOSE TWO CUES
PREDICTED POST THE CONCERN AND
THE BEHAVIOR.
SO IN THIS STUDY, OUR AIM WAS TO
BETTER DEFINE THE BEHAVIOR OF
THE AVERAGE CONSUMER ONLINE.
IT APPEARS THAT WHILE THEY'RE
SPECIFICALLY NOT READING
POLICIES, ESPECIALLY WHEN THE
SAFETY CUES EXIST.
SO IT LEAVES US TO HAVE THE SAME
CONVERSATION THAT THE REST OF
OUR PANELISTS HAD WHERE IF
THEY'RE NOT READING THE
POLICIES, CAN THERE BE
MEANINGFUL NOTICE AND CHOICE.
THAT'S A QUESTION FOR

POTENTIALLY ANOTHER DAY.

IF WE MAKE REALLY CLEVER USE OF THE CUES AND THERE MAY BE MORE THAN THE ONES WE EXPLORED, BOTH ENTITIES THAT COLLECT DATAS, BUSINESSES, ADVERTISERS, THE GOVERNMENT, NEWS MEDIA THAT USE DATA CAN REDUCE PRIVACY CONCERN, WHICH IS SOMETHING THEY WOULD LIKE TO DO, ENCOURAGE THE FREE FLOW OF DATA, ANOTHER SOMETHING THEY WOULD LIKE TO DO AND SOMETHING THAT LAST NIGHT WAS MENTIONED AT THE FEDERAL TRADE COMMISSION POTENTIALLY INTERESTING IN DOING ALSO AND INCREASED TRUST AND ON THE FLIP SIDE CONSUMERS CAN RELY ON CUES MORE MEANINGFUL EVEN IF THEY DON'T READ THE PRIVACY POLICIES THAT UNDERLIE THOSE PARTICULAR CUES.

SO WITH THAT, I REALLY HAVE TO

MOVE THROUGH THIS QUICKLY.

SO THERE'S REALLY A THREE-PRONG
APPROACH.

WE'VE ALREADY BEGUN THE RESEARCH
TO SORT OF DECIDE WHETHER OR NOT
THIS IS THE RIGHT APPROACH.

WE WOULD LIKE TO SUGGEST
GUIDELINES FOR DIFFERENT TYPE OF
DATA USE.

BASED ON THE AVERAGE CONSUMER'S
EXPECTATION OF PRIVACY.

SO THERE'S SOME ADDITIONAL
RESEARCH TO DO.

DELINEATE THOSE TYPES OF DATA
COLLECTION AND ASSIGN A CUE TO
EACH TYPE OF DATA THAT WOULD BE
ENDORSED BY THE FTC.

HERE'S THE CATCH FOR PEOPLE WHO
ARE IN THE ADVERTISING INDUSTRY
WHO ARE IN THE BUSINESS OF
COLLECTING AND USING CONSUMER
DATA.

THEY WOULD HAVE TO ADHERE TO

THOSE GUIDELINES IN ORDER TO USE
THE CUE ON THEIR SITES.

WHICH WOULD SIGNIFY SAFETY,
ET CETERA.

WE WOULD ALSO DO OUR RESEARCH ON
WHAT ICONS WOULD BE MOST
EFFECTIVE TO CONSUMERS AND ALSO
LINK THOSE ICONS TO READABLE
POLICIES.

ANOTHER THING THAT WE NOTED WAS
THE CONVENIENCE VARIABLE WAS
MADE UP OF ITEMS LIKE IT'S TOO
LONG, IT'S FEEL OF LEGALESE.

WE DON'T UNDERSTAND.

IF WE CAN MAKE THEM READABLE,
APPROACHABLE TO THE CONSUMERS,
WE COULD POTENTIALLY FOR THAT
SMALL SECT OF PEOPLE THAT WILL
READ THE POLICIES, THEY WILL
HAVE AN OPPORTUNITY TO MAKE
MEANINGFUL CHOICES AND IT WILL
BE SHORT, QUICK AND MORE
CONCISE.

SO IN CONCLUSION, WE ARE
CONTINUING TO PINPOINT CONSUMER
EXPECTATIONS OF PRIVACY IN A WAY
TO DEVELOP THE GUIDELINES AND
THE RESULTING CUES THAT WOULD
RESULT IN THE GUIDELINES.

AS JASMINE MENTIONED, WE'RE
CONTINUING TO COLLECT THE DATA
IN BOTH INTERVIEW PORTIONS OF
THE STUDY AND ALSO IN THE SURVEY
JUST TO MAKE SURE THAT WE HAVE
AS CLOSE TO A CENSUS AS
POSSIBLE.

WE'RE DEALING WITH THE AVERAGE
CONSUMER IN THE UNITED STATES AND
WE WANT TO MAKE SURE THAT WE GET
EVERYBODY.

EXAMINE CONTEXTUAL VARIABLES AS
THEY ARISE.

AS WE MENTIONED, THE CUES ARE
GREAT PREDICTORS.

DESIGN POLICIES FOR CONSUMERS.

SO THEY HAVE THE OPPORTUNITY TO

MAKE MEANINGFUL CHOICES IF THEY
DO IN FACT READ THOSE.

FINALLY SOMETHING THAT WE THINK
IS REALLY IMPORTANT AND I'LL
DIVERGE FOR A SECOND.

IN AUSTRALIA, THERE WAS A REALLY
GREAT PSA TO HELP PEOPLE AVOID
BEING HIT BY TRAINS.

IT WAS CALLED "THE DUMBER WAYS
TO DIE."

IT WENT VIRAL.

IT RESULTED IN LOWER TRAIN
DEATHS.

IT'S REALLY A SILLY VIDEO.

YOU CAN LOOK IT UP ON YOUTUBE.

THERE'S PEOPLE, ANIMAL-TYPE
THINGS DANCING AROUND AND
TALKING ABOUT DUMB WAYS TO DIE
AND NOT GET HIT BY A TRAIN.

WE'RE LOOKING TO DO A PSA LIKE
THAT THAT BASED ON RESEARCH IN
AMERICA -- THAT WORKED IN
AUSTRALIA.

MAY NOT WORK HERE -- TO ALLOW
BOTH CONSUMERS TO UNDERSTAND
WHAT THESE ICONS MEAN, HOW THEY
CAN USE THEM AS A WAY OF
INCREASING TRUST AND HOW -- AND
ALSO TO ENTICE ENTITIES TO OPT
IN TO THE SYSTEM AND ADOPT THE
GUIDELINES THE FTC HAS PUT
FORWARD IN A WAY TO ALIGN WITH
CONSUMER EXPECTATIONS.

WITH THAT, WE CONCLUDE.

[APPLAUSE]

>> THANK YOU VERY MUCH, HEATHER
AND JASMINE.

OUR FINAL PRESENTATION IS BY
ANGELICA PHILLIPS FROM THE
UNIVERSITY OF OXFORD AND JEN
CHARBONNEAU FROM THE UNIVERSITY
OF TASMANIA.

THEY'LL PRESENTING THEIR WORK ON
PRIVACY AND GENETIC TESTING
SPACE.

>> I'D LIKE TO THANK THE FTC FOR

OUR OPPORTUNITY TO DISCUSS THE
RESEARCH.

WE'RE GOING TO TALK ABOUT
PRIVACY BEING SPECIFIC DATA,
THAT BEING GENETIC DATA.

THE DATA THAT COMES FROM GENETIC
TESTING.

A VERY SPECIFIC TYPE OF DATA.

WHAT WE HAVE TO REALIZE IS,
GENETIC DATA IS THE MOST
PERSONAL DATA OUT THERE.

NOT ONLY IS IT A UNIQUE
IDENTIFIER OF US INDIVIDUALLY,
BUT BECAUSE OF THE FAMILIAR
NATURE OF DNA, IT CAN ALSO
IDENTIFY OUR FAMILIES.

SO WHEN WE'RE TALKING ABOUT
PRIVACY IN THIS CONTEXT, WE'RE
TALKING ABOUT A MUCH BROADER
CONTEXT.

NOT JUST PERSONAL, BUT LOOKING
AT THE FAMILY.

WE ALSO KNOW THAT THIS DATA IS

INHERENTLY IDENTIFIABLE.

THERE'S GROWING RECOGNITION THAT
IT'S NOT POSSIBLE TO DE-IDENTIFY
THIS DATA IN A WAY.

MAY TAKE A GOOD SKILL SET, BUT
AS WE GET INCREASING NUMBERS OF
GENETIC DATABASES OUT THERE, AS
THERE'S MORE PUBLIC DATABASES,
WE KNOW THAT WE CAN REIDENTIFY
THAT DAY THAT.

THE OTHER THING IS, THIS DATA IS
IRREVOCABLE.

IF THERE'S BEEN A PRIVACY
BREACH, YOU CAN'T CHANGE IT.

IT'S NOT LIKE YOUR iTUNES
PASSWORD.

YOU CAN'T COME UP WITH ANOTHER
ONE.

SO THIS IS A DIFFERENT TYPE OF
DATA.

DOES IT MATTER IF THIS HAPPENS
IN A DIRECT CONSUMER GENETIC
TESTING SITUATION?

WELL, FIRST THING WE HAVE TO
REALIZE IS THE DIFFERENCE
BETWEEN TRADITIONAL GENETIC
TESTING, WHAT HAPPENS WHEN WE
HAVE GENETIC TESTING IN A DIRECT
CONSUMER SETTING.

TRADITIONALLY GENETIC TESTING
HAPPENS WITHIN A COUNTRY'S
HEALTHCARE SYSTEM.

AND THAT'S IMPORTANT BECAUSE
WHEN AN INDIVIDUAL GETS THE
GENETIC TEST IN THEIR HEALTH
CARE SYSTEM, THEY'RE DEEMED A
PATIENT.

BY BEING CALLED A PATIENT, THAT
LIVENS A WHOLE HOST OF
PROFESSIONAL AND REGULATORY
OVERSIGHTED, EXISTING DUTIES OF
CARE AND THINGS LIKE
DOCTOR-PATIENT CONFIDENTIALITY.

SO ALL THE GOVERNMENT SYSTEMS
FOR DATA PROTECTION OF
HEALTHCARE KICK IN.

BECAUSE THAT'S A PATIENT.

WHEN WE LOOK AT DIRECT CONSUMER
GENETIC TESTING, WE HAVE TO
REALIZE THAT ADD ITS CORE, THIS
IS A COMMERCIAL TRANSACTION THAT
OCCURS IN EACH COUNTRY'S
MARKETPLACE.

AND INCREASINGLY IN MARKET SPACE
BECAUSE THE MAJORITY OF THE
ACTIVITY IS ACTUALLY ONLINE.

WHEN AN INDIVIDUAL ENGAGES WITH
DTC, THEY ENGAGE AS A CONSUMER.

WHAT THAT MEANS IS THAT ENLIVENS
EACH COUNTRY'S PROTECTION
LEGISLATION.

IT ENLIVENS SOME CONTRACT
NEGLIGENCE, ET CETERA.

A VERY DIFFERENT SITUATION.

WHAT DOES THE GENERAL PUBLIC
THINK OF WHEN THEY THINK OF
PRIVACY?

AT THE CENTER FOR LAW AND
GENETICS AT THE UNIVERSITY OF

TASMANIA, WE'VE BEEN LOOKING AT
GENETIC PRIVACY ISSUES THE LAST
20 YEARS.

IN THE LAST FEW YEARS, WE'VE
MOVED INTO DTC.

SOME OF OUR EARLY RESEARCH IN
DIRECT CONSUMER GENETIC TESTING
SUGGESTED FROM THE AUSTRALIAN
GENERAL PUBLIC'S PERSPECTIVE
THAT PRIVACY CONCERNS WERE GOING
TO BE THE KEY CONSTRAINT ON
COMMERCIAL UPTAKE.

INTERESTINGLY, THIS PAST YEAR,
WE FOUND THE SAME RESULTS WHEN
IT COMES TO INTENTION TO BIO
BANK.

IN OTHER WORDS, GIVING A GENETIC
SAMPLE INTO A GENETIC DATABASE
FOR NONPROFIT INSTITUTIONAL AND
HEALTH-RELATED RESEARCH AS
OPPOSED TO COMMERCIAL.

WE'VE ALSO MODELLED THE DTC'S
PHASE.

THAT WAS AN INTERESTING
EXERCISE.

AND FORCED THE THINKING TO GO
BROADER THAN JUST THE CONSUMER
COMPANY INTERACTION.

WHAT WE REALIZED VERY QUICKLY
WAS NOT ONLY DOES DNA GO A LOT
OF PLACES, THAT SAMPLE TRAVELS
FROM LAPS TO COMPANIES AND WHO
KNOWS WHERE THROUGH THE POSTAL
SYSTEM USUALLY, BUT ALSO THOSE
RESULTS CAN GO PLACES.

OKAY?

THE ACTUAL GENETIC DATA ABOUT
THOSE INDIVIDUALS GETS SPREAD
AROUND.

AND THAT INFORMED THE RESEARCH
THAT I'M GOING TO TALK ABOUT
TODAY, WHICH IS AN ONLINE PANEL
OF 3,000 RESPONDENTS OF 1,000
AMERICAN, 1,000 AUSTRALIAN AND
1,000 U.K. RESPONDENTS.

WE JUST ADDED IN 1,000 JAPANESE

RESPONDENTS, WHICH WILL GIVE US
INTERESTING CONTRASTS.

THE WAY THE SAMPLE BROKE DOWN,
ABOUT 10% OF THE PEOPLE ARE
ACTUAL CONSUMERS.

THAT EQUATES TO THE EARLIER
ADOPTER CATEGORIES.

LEAST ABOUT 90% OF MY
RESPONDENTS THAT ARE THE
POTENTIAL CONSUMER.

WE'RE ABLE TO LOOK AT ACTUAL
VERSUS ABLE POTENTIAL CONSUMERS.

IF SOMETHING IS PRIVATE, IT'S
NOT SHARED.

IF IT'S SHARED, IT'S NOT
PRIVATE.

IN A SIMPLY WAY.

THAT'S HOW THE GENERAL PUBLIC
LOOK AT THESE THINGS.

PRIVACY ISSUES ARISE FROM
SHARING.

SO PRIVACY IS ALL ABOUT CONTROL

OVER SHARING.

PROVIDING YOUR PERMISSION TO
SHARE MEANS THAT YOU HAVE
CONTROL OVER YOUR PRIVACY.

SO THAT'S THE WAY THE GENERAL
PUBLIC LOOKS AT IT.

IF MY PERMISSION HAVE ASKED,
THEN I KNOW WHAT IS BEING ASKED
FOR, I HAVE THE OPPORTUNITY TO
ASK QUESTIONS, BUT I ALSO HAVE
THE OPPORTUNITY TO SAY NO AND
THAT MY NO WILL BE RESPECTED.

SO I HAVE CONTROL OVER MY
PRIVACY IF MY PERMISSION IS
SOUGHT.

SO WHAT DO CONSUMERS THINK ABOUT
WHETHER OR NOT THEIR PERMISSION
WILL BE SOUGHT?

IN OTHER WORDS, AS THE PREVIOUS
PRESENTERS ALLUDED TO, THIS AREA
OF PERCEIVED CONTROL.

WELL, INTERESTINGLY, THE
AMERICAN RESPONDENTS, 47%,

THOUGHT THEY HAD PERCEIVED
CONTROL.

WHAT IS INTERESTING IS ON ANY
DIMENSION THAT I ANALYZED ON,
AMERICANS ARE STATISTICALLY
DIFFERENT TO THE OTHER CONSUMER
GROUPS.

FOR THE U.K., IT'S 43%.

FOR AUSTRALIAN, IT'S 40%.

FOR JAPANESE, IT'S 36%.

SO THAT'S QUITE A DIFFERENCE IN
TERMS OF WHETHER OR NOT PEOPLE
THINK THEIR PERMISSION WILL BE
ASKED.

ARE THEY IN PERCEIVED CONTROL?

IF THEY ARE IN PERCEIVED
CONTROL, WHAT DOES THAT MEAN?

WELL, THEY'RE MORE LIKELY TO
PURCHASE THE DTC TESTS.

THEY'RE MORE LIKELY TO
PARTICIPATE IN DTC RESEARCH.

AND THAT'S IMPORTANT BECAUSE
THAT IS PERMISSION-BASED.

RIGHT?

THEY ASK THEIR PERMISSION.

DO THEY REALIZE THAT WHAT
THEY'RE DOING IS GIVING SPECIFIC
ENDURING CONSENT.

THEY'RE MORE LIKELY TO SHARE
BROADLY.

THEY'LL SHARE WITH FAMILY, NOT
FRIENDS.

SO THERE'S SOME CONTROL.

THEY'LL SHARE WITH THEIR
DOCTORS.

THAT'S IMPORTANT BECAUSE DTC
COMPANIES VERY CLEARLY STATE
THEIR RESULTS ARE FOR RECREATION
OR INFORMATION OR EDUCATION
ONLY.

THEY'RE NOT A DIAGNOSIS.

IF THEY GO BACK TO THEIR
DOCTORS, THEY'RE BACK IN THE
TRADITIONAL SYSTEM.

THEY'RE ALSO LIKELY TO ENGAGE
WITH ONLINE SHARING COMMUNITIES.

DOES PERCEIVED CONTROL EQUATE TO
ACTUAL CONTROL?

THESE ARE COMMERCIAL
TRANSACTIONS GOVERNED BY
CONTRACTS AND PRIVACY POLICIES.

WE DID SOME RESEARCH IN
AUSTRALIA LOOKING AT THE PRIVACY
POLICIES OF THE DTC COMPANIES
OPERATING THERE.

DO THEY COMPLY WITH OUR
LEGISLATION?

THE SHORT ANSWER, NO, THEY DO
NOT.

I'M NOW GOING TO HAND IT OVER TO
ANGELICA TO TALK ABOUT MORE
ABOUT CONTRACT TERMS.

>> WELL, I'VE BEEN LOOKING AT
THE CONTRACTS AND PRIVACY
POLICIES OF DIRECT CONSUMER
TESTS, COMPANIES THAT OFFER
TESTS FOR HEALTH PURPOSES.

NOW, AS HAS BEEN NOTED IN THE
PREVIOUS SESSION AND ALSO IN THE

PREVIOUS GROUP'S WORK, THESE
CONTRACTS AND PRIVACY POLICIES
APPEAR EVERYWHERE ONLINE.

BASICALLY ANY WEBSITE YOU USE,
ANY SOFTWARE UPDATE YOU MAKE
WILL BE SUBJECT TO TERMS AND
CONDITIONS.

THEY'LL WILL BE PRESENTED EITHER
AS TERMS AND CONDITIONS, TERMS
OF USE, TERMS OF SERVICE,
PRIVACY STATEMENTS, PRIVACY
POLICIES AND SOMETIMES IN THIS
CONTEXT, THEY COMBINED IN ONE
DOCUMENT.

AT PRESENTLY, THEY'RE USED NOT
JUST TO GATHER THE PURCHASE OF
DNA TESTS BUT ALSO USING THE
WEBSITE AND SOMETIMES
PARTICIPATION IN ANY RESEARCH
THE COMPANY IS DOING.

NOW, AS SEVERAL PEOPLE HAVE
PREVIOUSLY NOTED, PEOPLE DON'T
TEND TO READ THESE CONTRACTS AND

PRIVACY POLICIES PARTLY BECAUSE
THERE'S SO MANY AND IT WOULD
TAKE TOO LONG.

THIS INDUSTRY IS NO EXCEPTION TO
THAT.

I WOULD ALSO SAY THAT SIMILARLY
TO MOST E-COMMERCE, THESE
CONTRACTS ARE NOT INDUSTRY
PACIFIC.

THEY DON'T NEEDILY ADDRESS ALL
THE ISSUES RAISED BY THE
INDUSTRY AND WHAT THEY'RE DOING
WITH DATA.

AND BECAUSE OF THE UBIQUITY OF
THESE CONTRACTS, CONSUMERS OFTEN
DISPLAY A POTENTIAL BLINDNESS
ONLINE.

WE MAY NOT READ THEM.

WE JUST CLICK ON AGREE.

THIS IS PROBLEMATIC IN THIS
CONTEXT.

I THINK THERE REALLY NEEDS TO BE
REFORM.

UNLIKE SOME OF THE OTHER -- WHAT WE SAID THAT CONSUMERS DON'T READ THESE, I'VE HAD TO READ 71 CONTRACTS.

AND I REALLY THINK THERE'S PROBLEMS HERE.

SO THE MAJOR PRIVACY RISKS IN THIS CONTEXT ARISE CHIEFLY FROM SHARING OR SALE OF SEQUENCE DNA. BUT ALSO FROM SHARING OR SALE OF OTHER TYPES OF PERSONAL DATA, OTHER DATA THAT COULD BE SENSITIVE.

THIS IS BECAUSE COMPANIES ARE OFTEN ENGAGING IN ONGOING HEALTH RESEARCH.

SO THEY'RE COLLECTING LARGE AMOUNTS OF PERSONAL DATA FROM CONSUMERS.

THERE'S THE RISK OF POSSIBLE DISCRIMINATION BASED ON A PERSON'S GENETIC MAKEUP.

AND THEN THERE'S OTHER RISKS.

SOME OF THESE ARE MORE FUTURE RISKS.

THERE'S A POSSIBILITY WITH THE INCREASING USE OF BIOMETRICS THAT IN THE FUTURE, THE GENETIC DATABASES COULD BE USED FOR IDENTITY THEFT, TARGETED MARKETING, MOST OFTEN TARGETED MARKETS OF DRUGS FOR FAMILY GROUPS.

ALSO, THERE'S A POTENTIAL FOR DISCRIMINATION IN EMPLOYMENT OR INSURANCE IF THIS DATA IS SHARED INAPPROPRIATELY.

MORE REMOTELY, THE RISK OF CREATING SOME SYNTHETIC DNA.

NOW, AS I PREVIOUSLY NOTED, THESE CONTRACTS ARE NOT INDUSTRY SPECIFIC.

SO OFTEN YOU'LL ENCOUNTER THE SAME TERMS IN THESE CONTRACTS THAT YOU WOULD WHEN YOU WERE PURCHASING A PRODUCT OR

DOWNLOADING A SONG ONLINE.

AND THEY ALSO USED SIMILAR
WORDING.

NOW, IN THE UNITED KINGDOM AND

THE EUROPEAN UNION, THERE'S

STRONG CONSUMER PROTECTION

LEGISLATION THAT DEEMS SOME

TERMS AND CONSUMER CONTRACTS TO

BE UNFAIR AND UNENFORCEABLE.

AT PRESENT, SOME OF THESE TERMS

WOULD LIKELY BE DEEMED UNFAIR

AND UNENFORCEABLE.

THIS IS INTERESTING.

I KNOW I'M AT THE FTC

CONFERENCE.

I'VE BEEN LOOKING MAINLY AT

AMERICAN COMPANIES, BUT THE

INFORMATION IS BEING SOLD

INTERNATIONALLY.

THERE'S A NEED FOR INTERNATIONAL

COLLABORATION TO PROTECT

CONSUMERS OF THIS CONTEXT.

SO ONE OF THE MOST CONCERNING

THINGS HERE IS THAT CONSENT WILL
OFTEN BE DEEMED FOR USE OR
VIEWING OF A WEBSITE.

OFTEN CONSENT TO ALTER TERMS
WILL ALSO BE DEEMED THROUGH
CONTINUING TO USE THE WEB SITE.

AS MOST OF YOU ARE AWARE, IT'S
OFTEN EASY TO USE A WEBSITE
WITHOUT LOOKING AT THE TERMS AND
CONDITIONS.

SO THIS IS QUITE CONCERNING,
BECAUSE THIS -- THE OTHER THING
THAT IS VERY COMMON AND THE
MAJORITY OF COMPANIES WILL
INCLUDE THIS AND 39% OF
COMPANIES INCLUDE A CLAUSE THAT
ALLOWS THEM TO CHANGE THE TERMS
AT ANY TIME.

A SMALL PERCENTAGE, 6%, WILL
ACTUALLY -- YEAH, 6% WILL
NOTIFIED A PERSON OF E-MAIL OR
CHANGES.

MOST OF THE TIME COMPANIES WITH

CHANGE THE TERMS AT ANY TIME OR
TIME TO TIME WITHOUT DIRECT
NOTICE TO THE CONSUMER, THIS IS
IMPORTANT HERE BECAUSE IT COULD
HAVE AN IMPACT ON WHAT COMPANIES
DO WITH YOUR DATA.

THEY COULD CHANGE THE POLICIES
ON SHARING SALE OR STORAGE OF
DATA.

AND THIS IS -- THIS CAN
SIGNIFICANTLY IMPACT CONSUMERS.

AS JEN MENTIONED PREVIOUSLY, AS
A CONSUMER SERVICE, COMPANIES
ARE OFTEN INCLUDING CLAUSES THAT
SAY THE SERVICES ARE ONLY FOR
RESEARCH, INFORMATIONAL OR
SOMETIMES EVEN RECREATIONAL
PURPOSES.

NOW, IN THE CONTEXT OF HEALTH
TESTING, I WOULD QUESTION
WHETHER ANYONE ORDERS A BREAST
CANCER RISK TEST FOR
RECREATIONAL PURPOSES.

AND QUITE A FEW OF THEM WILL
SHARE DATA WITH LAW ENFORCEMENT,
WHICH CONSUMERS MAY NOT BE AWARE
OF.

THERE'S BROAD SHARING WITH
POTENTIAL THIRD PARTIES THAT
MIGHT INCLUDE AFFILIATES.

YES, I'M RUNNING OUT OF TIME.

BUT I DO THINK THERE'S A NEED TO
IMPROVE THESE CONTRACTS.

FOLLOWING ON FROM THE PREVIOUS
TWO DISCUSSIONS WHERE I THINK
THESE CONTRACTS NEED TO BE
WRITTEN IN A MORE EASILY
UNDERSTOOD WAY THAT WOULD ENABLE
CONSUMERS TO MAKE INFORMED
DECISIONS.

THANK YOU VERY MUCH.

[APPLAUSE]

>> THANK YOU, ANGELICA AND JAN.

OKAY.

NOW IT'S TIME FOR OUR DISCUSSION
SESSION.

WE'LL BE SPENDING ABOUT 20
MINUTES, WHICH I'LL BE LEADING
WITH ALAN QUINN FROM THE
INNOVATION FOUNDATION AND DARREN
STEPHENSON FROM THE UNIVERSITY
OF MICHIGAN AN STANFORD LAW
SCHOOL.

START US OFF.

WE'RE EACH GO TO PROVIDE BRIEF
COMMENTS ABOUT WHAT WE HEARD
ABOUT ASK THE PRESENTERS ABOUT
THEIR WORK AND IMPLICATIONS.

TO ME, SEEMS LIKE YOU'RE ALL
STRIVING TO ANSWER SOME OF THE
SAME BASIC QUESTIONS.

WHAT DO CONSUMERS THINK ABOUT
PRIVACY AND WHY.

THOSE ARE THINGS LIKE
EXPECTATIONS OF THE DATA, HOW IT
WILL BE USED, WHAT EFFECTS
THEY'RE UNDERSTANDING.

DOES IT VARY BY THE TRUST OF THE
FIRM OR ONLINE EFFECTS.

AND I NOTICE THREE COMMON THEMES
IN YOUR ANSWERS OR YOUR
FINDINGS.

THE FIRST IS THAT NOTICE SEEMS
TO BE FAILING.

SO ANGELICA AND JASMINE'S PAPER
TALK ABOUT THE UBIQUITY OF FORM
CONTRACTS.

THEY GIVE THE COMPANY WHOSE
POLICY IT IS SOME SORT OF AN
ADVANTAGE.

SERGE FOUND 75% OF PERMISSIONS
WERE BEING REQUESTED INVISIBLY.

ASHWINI FOUND 40% WERE UNCLEAR
IN THE POLICIES.

ASHWINI, HEATHER AND JASMINE
FOUND CONSUMERS WERE RELYING ON
THINGS OTHER THAN PRIVACY
POLICIES.

THE SECOND THING IS THAT
COMPANIES POLICIES AND PRACTICES
AREN'T MATCHING UP WITH CONSUMER
EXPECTATIONS.

ASHWINI FOUND RAMPANT MIX
MATCHES OF REALITY.

ANGELICA AND JAN FOUND THAT HALF
OF THEM WERE SHARING POLICIES.

SERGE FOUND CONSUMER WOULDN'T
ALLOW SO MUCH ACCESS TO DATA.

THE THIRD THEME IS THAT SEVERAL
RECOMMENDED COMPANIES

HIGHLIGHTED UNEXPECTED DATA
COLLECTION AND JUST, ESPECIALLY
WHEN IT INVOLVES SENSITIVE
INFORMATION.

SERGE IS RECOMMENDING RUN TIME
PROMPTS WHEN ACCESSING PROTECTED
RESOURCES.

ASHWINI HIGHLIGHTS UNEXPECTED
USES.

ANGELICA AND JAN RECOMMENDED
HIGHLIGHTS SHORTER CLEARER
NOTICES.

ONE OF THE BIGGEST BENEFITS THAT
I SEE OF PRIVACY IS IT BRINGS
YOU TOGETHER.

THE BEST AND THE BRIGHTEST
WORKING TO UNDERSTAND THE ISSUES
AND PROVIDING US WITH THE
BENEFITS OF YOUR LEARNING.

WE'RE HOPING THIS CONFERENCE
WILL FACILITATE FROM YOU
BUILDING ON EACH OTHER'S WORK.

WE HOPE TO BENEFIT FROM THE
INSIGHTS YOU'VE GIVEN US ABOUT
HOW TO BEST PROTECT PRIVACY AND
INDUSTRY CAN HOPEFULLY DO THE
SAME.

AS CHAIR WOMAN RAMIREZ SAID, WE
HAVE TO STAY UP TO DATE WITH THE
FINDINGS ON PRIVACY, DATA
RESEARCH AND PROTECT CONSUMERS.

YOUR EFFORTS DEEPEN OUR URNING
AND SPUR OUR OWN RESEARCH IN
THAT RESPECT.

SO THANK YOU ALL AGAIN FOR
COMING AND SHARING YOUR
THOUGHTS.

WITH THAT, I'M GOING TO TURN IT

OVER TO MY CO-DISCUSSANTS.

>> THANK YOU FOR THE FTC FOR

LETTING ME COME HERE TODAY.

I THOUGHT ALL OF THE DISCUSSIONS

WERE THOUGHT-PROVOKING AND COULD

HELP BUSINESSES BETTER

UNDERSTAND THEIR CONSUMERS.

WE'RE HERE TODAY AT THE FTC.

WHAT I'M LOOKING FOR IS EVIDENCE

OF THE NEED FOR PUBLIC POLICY

INTERVENTION.

FRANKLY I'M NOT SURE THAT

THERE'S MUCH.

AS WE WALK INTO THIS, THERE'S

DEFINITELY A LOT OF DISCUSSIONS

OVER DIFFERENT PUBLIC

EXPECTATIONS VERSUS PRIVACY OR

PEOPLE NOT UNDERSTANDING THE

LEGALESE IN DIRECT CONSUMER

GENETIC CONTRACTS.

IS THAT A PUBLIC POLICY PROP?

I'M NOT SO SURE.

LET ME DRAW AN ANALOGY.

SAY I'M NOT NECESSARILY SURE
WHAT GOES INTO MY CHIPOTLE
BURRITO.
SURE, I CAN PICK DIFFERENT
FILLINGS AND I MAY BE ABLE TO
PICK DIFFERENT FILLINGS, BUT I'M
NOT SURE HOW THEY'RE SOURCED.
SO WHEN YOU ASK ME QUESTIONS
ABOUT WHAT IS IN MY CHIPOTLE
BURRITO, MY EXPECTATIONS MAY
DIFFER FROM THE REALITY OF
WHAT'S IN THERE.
THAT'S NOT NECESSARILY A PUBLIC
POLICY PROBLEM.
RIGHT?
BUT WHAT IS A PUBLIC POLICY
PROBLEM IS WHEN CONSUMERS START
TO GET SICK OR HAVE FOOD
POISONING AS A RESULT OF
CONTAMINATED FOOD FROM THE
CHIPOTLE BURRITO.
WHEN I REASON TO THESE
PRESENTATIONS AND READING THESE

REPORTS, I'M NOT NECESSARILY --
I'M SEEING THAT WE'RE TALKING
ABOUT WHAT IS IN THE PRIVACY
BURRITO RATHER THAN TALK ABOUT
THE PRIVACY FOOD POISONING.

THAT'S FOOD FOR THOUGHT, I
GUESS.

I LOOK FORWARD TO A GOOD
DISCUSSION.

THANK YOU.

>> I HAVE NO WAY TO CONNECT TO
THE BURRITO.

BUT WE WISH CHIPOTLE WELL WITH
THEIR ISSUES.

AT THE RISK OF STATING THE
OBVIOUS, WE HAVE EVIDENCE AND
STUDIES THAT SHOW THAT CONSUMERS
HAVE EXPECTATIONS.

ALL OF YOU IN THIS ROOM, YOU'RE
NOT ORDINARY CONSUMERS.

YEAR HERE AT PRIVACY CON.

BUT WE'RE SEEING THERE'S
CONSISTENT MEASURABLE

EXPECTATIONS.

REALLY ENJOYED THE STUDIES AND I
ENCOURAGE YOU TO READ THEM IF
YOU'RE NOT READ THE PAPERS.

I THINK MOST OF THESE PAPERS
HAVE SUPPORTED THIS NOTION OF
CONTEXT YOU'LL INTEGRITY.

IT'S POPULARIZED BY NISSANBALM
AND OTHERS THAT ARE MEASURABLE
AND CAN BE DEMONSTRATED.

TWO COMPLICATIONS COME TO MIND.

THE FIRST IS THE DIFFERENCE
BETWEEN EXPECTATIONS AND
PREFERENCES.

IT WAS CLEAR IN PAPERS THAT
THEY'RE CAREFUL TO DEFINE WHAT
IS AN EXPECTATION.

WHAT ARE WE STUDYING HERE AND TO
CONTRAST THAT WITH CONSUMERS'
PREFERENCES.

EXPECTATIONS BEING DIFFERENT
THAN PREFERENCES THAT WE SAW IN
OTHER WORK THAT CONSUMERS MIGHT

BE RESIGNED.

SO EXPECTATIONS AND PREFERENCES

DIVERGE.

WHAT ARE WE MEASURING?

IS IT EXPECTATIONS OR WHAT THEY

PREFER?

THE PAPERS, A FEW OF THEM, WENT

BACK AND FORTH ON THAT.

A SECOND COMPLICATION THAT COMES

TO MIND ARE EXPECTATIONS OR

PREFERENCES, CONSUMER TASTES,

THIS IS A MOVING TARGET.

THESE ARE CONTINUALLY CHANGING.

EVEN THOUGH THEY'RE CONSISTENT

AND WE CAN MEASURE THEM

EMPIRICALLY.

WE CAN TRACK AND BE RESPONSE TO

SOMETHING THAT IS CHANGING,

DYNAMIC.

IF WE HAD PRIVACY CON IN THREE

YEARS, NEXT YEAR, FIVE YEARS AND

WE REPEAT ALL THESE STUDIES OF
CONSUMERS, WILL WE SEE THE SAME
EXPECTATIONS.

HOW CAN POLICY MEMBERS
INCORPORATE THIS MOVING TARGET
OF CONSUMER EXPECTATIONS.

I LOOK FORWARD TO THE DISCUSSION
HERE.

OPEN IT UP TO QUESTIONS.

IF YOU HAVE ANY RESPONSES TO OUR
COMMENTS.

>> I DON'T KNOW.

I LIKE THE BURRITO ANALOGY.

BUT AT THE SAME TIME, IF
CHIPOTLE HAS LEAN STEAK OR
WHATEVER THEY HAVE, RIGHT?

THEY -- IF THEY MAKE
REPRESENTATIONS TO THE CONSUMER
THAT IT'S FROM A CERTAIN SOURCE,
YOU HAVE EXPECTATIONS THAT HEY,
MY BEEF IS FROM A CERTAIN
SOURCE.

AND IF -- EVEN IF WE DON'T KNOW

EXACTLY WHERE IT'S FROM, WE HAVE
AN EXPECTATION THAT WE SHOULD
GET A PRODUCT OF SOME, I GUESS,
QUALITY.

OR AT LEAST WE EXPECT THE
REGULATORS WOULD ENFORCE THEM --
ENFORCE THE RESTAURANT GIVING US
A PRODUCT THAT EITHER WON'T MAKE
US SICK OR WON'T HAVE BEEN, YOU
KNOW, HAVE SOMETHING DONE TO IT
BY A WORKER THERE, RIGHT?

SO I THINK THERE IS A CERTAIN
LEVEL OF PROTECTION WE EXPECT
FROM REGULATORS FROM THINGS LIKE
PRIVACY.

MOST OF US ARE USED TO JAY
WALKERS, RIGHT?

SO WE'RE SUPPOSED TO CROSS AT
THE LIGHT, RIGHT?

JAYWALKING IS MORE CONVENIENT.
IT JUST IS.

THERE'S AN INHERENT RISK IN
JAYWALKING, RIGHT?

SO REGULAR LAYERS, PARTICULARLY
ON COLLEGE CAMPUSES, WHICH I
THINK MOST OF US ARE USED TO,
HAVE SAID, YOU KNOW WHAT?
WE SEE PEOPLE WILL CUT ACROSS
HERE ANYWAYS.

BECAUSE THERE'S A POWER DYNAMIC
THAT SKEWS IN FAVOR OF THE
MOVING VEHICLE, LESS PUT ACROSS
WALK HERE AND WE EXPECT THE CAR,
THE BUS, THE WHATEVER, TO STOP
AND LET THOSE PEOPLE WHO ARE --
WHO WOULD BE JAYWALKING IN THE
FIRST PLACE TO CROSS.

IT DOESN'T TAKE AWAY THE POWER
OF THE BUS OR IN THIS CASE THE
CORPORATION, BUT IT DOES SAY,
WITH SPIDER MAIN, GREAT POWER
COMES GREAT RESPONSIBILITY.

SO THE EXPECTATION IS THAT WHEN
THE BUS OR THE WHATEVER SEES
THAT PERSON IN THE WALK, THEY'RE
GOING TO STOP.

DOES IT HAPPEN ALL THE TIME?

NO.

I THINK FROM A PUBLIC POLICY
PERSPECTIVE, IT'S PUTTING IN ITS
PRO ACTIVE MEASURES TO PROTECT
PEOPLE FROM THEMSELVES AND OTHER
PEOPLE AT TIMES.

I THINK, YOU KNOW, FROM THE
PERSPECTIVE OF A REGULATORY
AGENCY THAT IS A CONSUMER
PROTECTION AGENCY, WANTING TO DO
SOMETHING PROACTIVELY WHEN
THERE'S SIGNS OF ISSUES OR
TROUBLE.

I THINK IT'S PERHAPS INCUMBENT
UPON A CONSUMER PROTECTION
AGENCY TO DO THAT.

>> SO I GUESS THE ISSUE OF
EXPECTATIONS VERSUS PREFERENCES.
SO WE'VE DONE SOME STUDIES AND
WE HAVE ACTUAL DATA TO SHOW
THAT, YOU KNOW, TO SOME EXTENT
THIS IS AN ISSUE OF LEARNED

HELPLESSNESS.

SO PEOPLE ARE JUST SORT OF
RESIGNED TO THE FACT THAT ALL OF
THE DATA IS OUT THERE,
REGARDLESS OF WHETHER THAT IS
ACTUALLY THE CASE.

SO FOR INSTANCE, WE DID A STUDY
LOOKING AT SINGLE SIGN AUTO
WEBSITES.

SO WHEN YOU CLICK THE USER
FACEBOOK LOG IN TO LOG INTO THIS
WEBSITE, THE SITES CAN REQUEST
SOME DATA FROM YOUR FACEBOOK
PROFILE.

SO WE WANTED TO SEE WHETHER
MAKING THAT MORE APPARENT TO
USERS, SO TRYING TO HIGHLIGHT
WHAT TYPES OF DATA MIGHT BE
COLLECTED BUT THE WEBSITES FROM
YOUR FACEBOOK PROFILE, WE
EXPECTED THAT THAT WOULD HAVE AN
EFFECT ON WHETHER PEOPLE USED
THIS.

WE FOUND THAT THAT WAS NOT THE
CASE.

WHEN INTERVIEWING SUBJECTS, THEY
SAID, OH, THEY JUST ASSUMED THAT
FACEBOOK IS GIVING AWAY ALL THIS
DATA ANYWAY.

I MIGHT AS WELL GET A BENEFIT
FROM IT.

SO THAT'S THE LEARNED
HELPLESSNESS ISSUE.

I'M NOT SURE THERE'S ANY -- I
THINK ADDRESSING PART OF THAT IS
PUTTING THE CART BEFORE THE
HORSE.

I THINK ONE OF THE ISSUES WE
NEED TO FOCUS ON ARE, YOU KNOW,
THE EXPECTATIONS BEFORE THEY'RE
FORMED.

SOME OF THAT MIGHT BE DOING A
BETTER JOB OF PUBLIC EDUCATION
WITH REGARD TO ONLINE PRIVACY.

OTHER PIECES MIGHT COME IN THE
FORM OF ENFORCEMENT, MAKING THAT

SOMEWHAT MORE SUBJECTIVE.

SO YES, THE LAW MOVES VERY SLOWLY.

TECHNOLOGY MOVES QUICKLY.

BUT I DON'T THINK -- I DON'T

THINK THE ISSUE IS MAKING THE POLICIES AROUND SPECIFIC TECHNOLOGIES.

THE ISSUE HERE IS NARROWING OR CLOSING THE INFORMATION ASYMMETRIES.

SO WHILE WE DON'T EXPECT PEOPLE TO READ EVERY PRIVACY POLICY THAT THEY ENCOUNTER, WE HAVE SOME EXPECTATIONS ABOUT WHAT A BUSINESS MIGHT BE DOING AS WE POINTED OUT.

SO I DON'T EXPECT -- REGARDLESS OF WHAT THEY SAY ABOUT WHAT FARM THE BEEF CAME FROM, I DON'T EXPECT IT TO HAVE E. COLI IN IT. THAT'S NOT SOMETHING THAT THEY NEED TO EXPLICITLY NEED TO

PROVIDE NOTICE FOR IT.

IT SHOULD BE EXPECTED THERE'S NO

E. COLI IN THIS BEEF.

I'LL LEAVE IT AT THAT.

>> I'D LIKE TO -- WE KIND OF RAN

OUT OF TIME A LITTLE BIT.

THERE'S REALLY A NEED FOR MORE

TRANSPARENCY IN THE INDUSTRY

WE'RE LOOKING AT.

IF YOU LOOK AT WEBSITE CLAIMS,

THERE WILL BE QUIT A GAP BETWEEN

WHAT THE CONTRACT ACTUALLY SAYS

AND WHAT THE WEBSITE IS

ENCOURAGING CONSUMERS TO BELIEVE

WHEN THEY ARE ENCOURAGING PEOPLE

TO PURCHASE THINGS.

BECAUSE THE INDUSTRY IS SO NEW

AND THE TECHNOLOGY IS CHANGING

SO FAST AND IT'S SO UNREGULATED,

A LOT OF TESTS COMING TO MARKET

HAVEN'T BEEN VALIDATED.

SO THERE'S A QUESTION ABOUT WHAT

THE CONSUMER IS ACTUALLY BUYING.

BECAUSE THE VALUE TO THE COMPANY IS THE SEQUENCE DNA, WHICH THEY'RE USING IN ON GOING RESEARCH OFTEN.

SO THEY'RE SELLING A PRODUCT THAT GIVES THEM VERY PERSONAL DATA THAT THEY USE FOR A LONG TIME AND MAY NOT BE DESTROYING EVER POTENTIALLY.

AND THE CONSUMER, AN ORDINARY CONSUMER DOESN'T NECESSARILY HAVE THE EXPERTISE TO UNDERSTAND ALL OF THE RISKS.

THE OTHER THING IS THAT GENETIC TEST RESULTS ARE COMPLEX IN NATURE.

A LOT OF GENERAL PRACTITIONERS HAVE TROUBLE INTERPRETING GENETIC TEST RESULTS.

THERE'S BEEN SOME STUDIES THAT HAVE SHOWN THAT A LOT OF GPs WOULDN'T BE COMFORTABLE WITH INTERPRETING A DTC TEST RESULT

IF A CONSUMER BRINGS IT IN.

AT THE MOMENT, MOST OF THE TIME

IT'S BEING EVALUATED AS A

CONSUMER SERVICE.

IN TERMS OF PARTICULAR WORRYING

TERMS AND CONTRACTS IN SOME

COUNTRIES AT THE U.K., THE

OFFICE OF FAIR TRADING, WHICH IS

NOW BEING DISBANDED BUT IS LIKE

COMPETITION AND MATH, HAS A

HISTORY OF WORKING WITH INDUSTRY

TO TRY TO DISCONTINUE CERTAIN

UNFAIR TERMS AS WELL.

THAT'S WHAT I WOULD SAY.

THERE'S SOME TERMS THAT

SHOULDN'T BE IN THE CONTRACT

BECAUSE IT'S MAKING IT'S A VERY

UNFAIR AND UNBALANCED BARGAIN.

A LOT OF THE USE OF THESE

CONTRACTS IS ALSO ERODING

TRADITIONAL CONTRACT LAW

PRINCIPLES, REALLY.

I THINK PEOPLE WILL OFTEN TEND

TO ENGAGE WITH THESE MUCH MORE
DIFFERENTLY THAN THEY WOULD A
PAPER CONTRACT.

SO IF A BROWER IS LINK, IT'S
LIKE SEEING A SIGN ON A WALL AND
WALKING OUT.

IT'S PROBLEMATIC.

THANK YOU.

>> I THINK I'LL ADD ONE.

IN SOMEONE'S SLIDE, THERE WAS A
MENTION OF INCORRECT MODELS.

A LOT OF US THINK THROUGH
CONSUMER KNOWLEDGE AND THE
EDUCATED CONSUMER.

NOBODY WOULD ARGUE FOR
UNINFORMED CONSUMER AS A GOAL.

I WANT TO PUSH BACK SAYING THE
GOAL OF THIS WORK IS TO CORRECT
MENTAL MODELS.

I'M CURIOUS WHAT YOU THINK.

SOMEONE SMARTER THAN ME SAID
SOMETHING LIKE ALL MODELS ARE
WRONG, SOME ARE USEFUL.

THE CONSUMER SOMETIMES HAVE VERY
WRONG OR INACCURATE MODELS THAT
ARE HELPFUL.

I'M CURIOUS IN THIS WORK, SINCE
YOU'RE STUDYING CONSUMERS'
PERCEPTIONS IF YOU SEE THE IN
ACCURACIES BENEFICIAL.

DOES THAT MAKE SENSE?

>> YEAH.

THAT WAS MY SLIDE.

I THINK THAT ONE OF THE BIGGER
PROBLEMS WITH NOTICE AND CHOICE
IS THAT THERE ARE -- I GUESS
THERE'S UNREASONABLENESS ON BOTH
SIDES.

SO THERE'S UNREASONABLE
EXPECTATIONS ON WHAT THE
CONSUMER SHOULD KNOW TO MAKE AN
ADEQUATE NOTICE.

IT'S UNREASONABLE TO EXPECT
EVERY CONSUMER TO READ EVERY
PRIVACY POLICY THEY ENCOUNTER.

AT THE SAME TIME, YES, PEOPLE

HAVE BAD MENTAL MODELS ABOUT
WHAT IS HAPPENING WITH THEIR
DATA WHEN THEY GO ONLINE.
AND I THINK MAYBE THERE NEEDS TO
BE SOME BETTER OUTREACH ON THAT
ISSUE.

AT THE SAME TIME, THAT GOES TO
ENFORCEMENT.

INSTEAD OF THINKING DID THE
COMPANY GIVE NOTICE AND WAS IT,
YOU KNOW, INCORRECT AND OUTRIGHT
MISLEADING, BUT YOU KNOW, IS IT
ALSO ADDING INTO THAT EQUATION,
IS IT REASONABLE TO EXPECT THAT
SOMEONE COULD ACTUALLY
UNDERSTAND THIS.

AND I DON'T THINK THAT'S
CURRENTLY BEING TAKEN INTO
ACCOUNT.

>> SO I'LL ANSWER THAT VERY
BRIEFLY.

AS FAR AS USING THE MENTAL
MODEL, FIRST OF ALL, I DISAGREE

THAT USING THEM ARE FALSEE.

THEY'RE ALMOST ALWAYS CORRECT.

WE LIE ON THEM ALL DAY LONG.

WHAT WE'RE ARGUING FOR ARE --

WE'RE GIVING CONSUMERS BACKED BY

INFORMED AND CONCISE AND TRUE

INFORMATION THAT THE FTC

APPROVES.

SO BY USING -- PROMOTING

CONSUMERS AND ALLOWING THEM TO

SEE WHAT THIS DATA MEANS,

PROMOTING THE CUES TO THE

CONSUMERS, IT GIVES THEM A

MEANINGFUL CHOICE.

IT'S NO LONGER SOMETHING THAT

RISK IS AS MUCH OF AN ISSUE FOR.

MORE IS SOMETHING THAT THEY CAN

GENUINELY RELY ON AS AN

INDICATOR OF SAFETY.

>> CAN YOU PLEASE TALK MORE

ABOUT HOW YOU SEE THAT KIND --

HOW YOU WOULD DEVELOP IT ON

EXPECTATIONS GIVING THAT WE

HEARD THAT THE FINDERS ARE
CONSUMER DEPENDENT.

HOW WOULD YOU GO ABOUT TRYING TO
DEVELOP SOMETHING THAT WOULD BE
GENERALLY APPLICABLE?

>> WE'RE IN THE PRELIMINARY
STAGES OF DOING THAT.

THIS WOULD BE SOMEBODY THAT
WE'RE GOING TO TEST IN A LAB,
LOOKING AT PEOPLE'S AUTOMATIC
RESPONSES IN ADDITION TO
SELF-REPORT.

BUT THAT SAID, LOOKING AT
HUEISTICS AND MAKING CUES THAT
WERE IN LINE WITH GUIDELINES IS
BASED ON CONSUMER EXPECTATIONS
IS A DIFFERENT TYPE OF DATA
COLLECTION.

ENTITIES COULD OPT IN DEPENDING
ON HOW THEY WERE COLLECTING AND
USING THAT PARTICULAR TYPE OF
DATA.

THERE WOULD BE A CONTINUUM OF

ICONS OR CUES THAT YOU COULD USE
AND THEN IN ORDER TO USE THAT ON
YOUR SITE OR WITHIN YOUR
MATERIALS, YOU WOULD HAVE TO
ADOPT THE FTC'S GUIDELINES THAT
WENT WITH THAT PARTICULAR ICON.
YOU WOULD TEST EVERY ELEMENT OF
THAT.

SO THE ICON ITSELF WOULD HAVE TO
BE SOMETHING THAT WE WOULD TEST
THAT CAUGHT SOMEONE'S EYE.

PEOPLE DIDN'T NOTICE SOME OF IF
PRIVACY POLICIES.

THAT'S SOMETHING THAT YOU CAN
CORRECT WITH BETTER WEB DESIGN.

>> WE HAVE ABOUT 20 SECONDS
LEFT.

I'D LIKE TO GIVE YOU AN
OPPORTUNITY TO ASK LAST
QUESTION.

>> SO TO FOLLOW UP ON WHAT
DARREN SAID WITH HOW PRIVACY
CONCERNS HAVE MORPHED AND

CHANGED OVER TIME.

THE ITIF RELEASED A REPORT THAT
CRACKS THIS.

BUT I WANTED TO SEE SEVERAL
DIFFERENT INDUSTRIES UP HERE
HAVE -- THAT YOU CITY DIDDED
HAVE CHANGED OVER TIME.

SOME HAVE CHANGED LIKE GENETIC
TESTING.

ANDROID IS ON ITS SIXTH RELEASE.

CAN YOU TALK ABOUT IF YOU'VE
SEEN EXPECTATIONS CHANGE OVER
TIME.

>> ME?

I THINK ONE OF THE THINGS WE
HAVE TO ACKNOWLEDGE IS THAT
WE'RE MOVING INTO THE
COMMERCIALIZATION OF HEALTH.
WE'RE MOVING INTO THE
MONEYIZATION OF HEALTH DAN --
DATA.

AS WE MOVE INTO THIS WHETHER
IT'S DIRECT CONSUMER GENETIC

TESTING, WHETHER IT'S THE DATA
COMING FROM YOUR FIT BIT,
WHETHER IT'S INFORMATION ON YOUR
SHARING WEBSITES, THINKING
YOU'RE JUST MEETING FOLKS OUT
THERE THAT HAVE THE SAME
COMPLAINTS YOU DO AND LET ME
TELL YOU WHAT HAPPENED WITH THE
LATEST DRUG, THIS IS NOW BEING
MONETIZED.

THIS IS IN THE CORPORATE SPHERE
AND OUR PROTECTIONS OF THE
PROTECTIONS OF THE DATA WERE
CREATED FOR THE TRADITIONAL
HEALTHCARE SYSTEM.

WE HAVEN'T MADE THE MOVE OVER
INTO LOOKING AT ANYTHING
INDUSTRY SPECIFIC AS WE MOVE
INTO THIS NEW FORM OF
COMMERCIALIZING HEALTHCARE AND
ALSO MONETIZING HEALTH DATA.

>> SO ONE THING THAT WE'VE
LOOKED AT IS TRYING TO

RELATIVELY WEIGH DIFFERENT USER
CONCERNS BASED ON THE
TECHNOLOGIES.

SO I GUESS GOING TO THIS ISSUE
OF WHAT POLICY IS NEEDED AND
POLICY MOVES SLOWLY AND
TECHNOLOGY MOVES FAST.

WHILE PEOPLE HAVE PRIVACY
EXPECTATIONS, THERE'S SOME
THINGS THAT PEOPLE WILL THINK OF
AS UNIVERSALLY BAD OR
UNIVERSALLY UNCONCERNING.

SO WE DID THIS STUDY THREE OR
FOUR YEARS AGO.

WE CAME UP WITH A WHOLE SLEW OF
RISKS RELATED TO SMART PHONE
USAGE SUCH AS AN APP THAT USES
DATA FOR X OR SHARES DATA WITH
CERTAIN PARTIES.

AND WE HAD PEOPLE RANK THOSE.
THIS PAST YEAR WE DID A FOLLOW
UP STUDY TO THAT WHERE WE CAME
UP WITH SIMILAR RISKS RELATED TO

WEARABLE DEVICES AND IOT.

WHAT WE FOUND IS IF YOU

CATEGORIZE THOSE RISKS, THE

RESULTS PRETTY MUCH ARE HELD.

PEOPLE ARE UNIVERSALLY CONCERNED

WITH FINANCIAL IMPACT.

ALMOST UNIVERSAL CONCERNED WITH

THINGS THAT ARE PUBLIC.

APPROXIMATION OF YOUR AGE, FOR

INSTANCE.

SO, YOU KNOW, IN THAT REGARD, I

DON'T THINK WE SHOULD EXPECT

REGULATION BE SPECIFIC TO THE

TECHNOLOGIES, BUT WE CAN COME UP

WITH REGULATION AROUND VARIOUS

RISKS THAT MOST PEOPLE ARE

CONCERNED WITH.

THAT SHOULD LAST LONGER THAN THE

SPECIFIC TECHNOLOGIES.

>> UNFORTUNATELY WE ARE OUT OF

TIME.

HOPEFULLY WE CAN KEEP THE

CONVERSATION GOING AFTER THIS

CONFERENCE.

FOR ALL OF YOU IN THE AUDIENCE,
OUR CAFETERIA WON'T BE OPEN BUT
THERE ARE BOXED LUNCHES
AVAILABLE.

YOU MAY EAT YOUR LUNCH IN THE
OVERFLOW CONFERENCE ROOMS ACROSS
THE HALLWAY.

FOOD IS NOT PERMITTED IN THIS
AUDITORIUM, NEITHER ARE
BEVERAGES EXCEPT FOR WATER.

IF YOU LEAVE THE BUILDING, SAVE
TIME TO COME BACK THROUGH
SECURITY ON YOUR WAY IN.

IF YOU DON'T HAVE ELECTRONICS
WITH YOU WHEN YOU GO THROUGH
SECURITY, THE SCREENING WILL BE
FASTER.

I'VE BEEN TOLD THERE'S A GUARD
HERE AND THAT THE ROOM WILL BE
LOCKED TO LEAVE YOUR
ELECTRONICS.

THANKS FOR COMING.

WE'LL SEE YOU BACK AT 1:00 P.M.