

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.

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 ARE

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 JAUSE

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

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.

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.

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

ALL.

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

THAT'S BECAUSE EVERY TIME AN

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

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.

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

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

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?

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.

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.

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,

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

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 EXAMMATIROMATIR THED.002 Tc Tj EMC /P <</MCID 7 >>BDC P <4V-3(AT)-21(I)11(ON.)02 T

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

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 P

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

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

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

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.

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

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

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

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

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.

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

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.

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?

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

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.

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

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

DOES IT HAPPEN ALL THE TIME?

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

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

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 VER

TO ENGAGE WITH THESE MUCH MORE

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

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

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.