



breakthrough



Breakthrough Case Study

I Can End Deportation - ICED

Acknowledgments

Thanks to Heidi Boisvert, Carly Fox, Paula Gottlob, Farah Malik, and Crissy Spivey for taking the time to contribute to this report.

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Breakthrough is a global human rights organization.

Our mission is to prevent violence against women and girls by transforming the norms and cultures that enable it.

We carry out this mission by building a critical mass of change agents worldwide — the Breakthrough Generation — whose bold collective action will deliver irreversible impact on the issue of our time.

Working out of centers in India and the U.S., we create innovative, relevant multimedia tools and programs — from short animations to long-term leadership training — that reach individuals and institutions where they are, inspiring and equipping them to build a world in which all people live with dignity, equality, and justice.

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ICED - I Can End Deportation (icedgame.com) is a first-of-its-kind, free, downloadable 3D video game that puts players in the shoes of immigrants struggling to live, study, and work in the U.S. With hundreds of thousands of downloads and extensive press coverage worldwide since its release in 2008, it has changed the way people think about the human rights of immigrants and the importance of due process and fairness for all.

This report describes Breakthrough's development and dissemination of ICED as a case study for the potential of video games to promote social change.

Here, we share our experiences in the early — and still evolving — use of video games as tools for advancing human rights, as well as our success in using gaming to educate youth and young adults about unfair U.S. immigration policies.

Note: For the first 12 years of Breakthrough's work in the U.S., our work — emerging in the aftermath of the September 11 attacks — focused on promoting immigrant rights, due process, and racial justice. We have since aligned ourselves as a global organization around one primary mission: making violence and discrimination against women and girls unacceptable. Through this lens, we continue to use innovative tools to mobilize individuals and communities to promote the rights of immigrant women. Further, we believe that a world in which women and girls enjoy their rights is a world in which all marginalized people, including immigrants, live with dignity, equality, and justice.

ICED at a Glance

- 3D first-person video game
- 28 million people worldwide reached through coverage in print, broadcast, and online media
- more than 131,000 players in 175 countries since 2008 launch*
- 2 levels, 5 characters, multiple outcomes
- free to download and play
- both Windows and Mac
- developed in cooperation with key immigrant rights and human rights groups in New York and elsewhere
- designed with assistance from 100+ New York-area teens
- built on independent public domain Torque Game Builder engine
- animated using Autodesk Maya 3D graphics software
- disseminated via downloads from a dedicated site as well as through gaming sites and selectively distributed CDs

**based on visits to dedicated site; actual number not known because game downloads/uses are not tracked*

1. Summary

ICED - I Can End Deportation is a free first-person 3D video game designed to raise awareness of unfair U.S. immigration policies by placing players in the shoes of five characters, each with a different immigration status. (The name itself is a play on U.S. Immigration and Customs Enforcement, or ICE, the largest investigative branch of the Department of Homeland Security.) It represents Breakthrough's first foray into the emerging space of gaming for social change. Breakthrough developed the game in 2006-2007 and released it, with an accompanying curriculum and discussion guide for classroom use, in 2008.

As of late 2011, *ICED* had reached more than 131,000 people in 175 countries via its website alone, and thousands more through CDs, shared downloads, and other means — even without the resources necessary to carry out a mainstream-quality launch campaign. As the first game to address the controversial topic of immigrant rights as human rights, *ICED* generated significant domestic and international media attention both domestically and internationally. It attracted attention at the highest levels of the U.S. government. It paved the way for Breakthrough's later development of more complex and sophisticated games, such as its Facebook-based *America 2049*. Most critically, *ICED* proved the efficacy of gaming as a way to increase players' empathy as well as their understanding of complex and contentious issues.

The development and dissemination of *ICED* — along with the player and public response to it — demonstrates that games are an effective tool for social change. By presenting complex issues in an accessible, interactive

format, *ICED* measurably affected players' opinions and generated significant press coverage in ways that challenged the dominant narratives and brought immigrant rights and realities to wider mainstream audiences. *ICED* also provided Breakthrough with important insights about incorporating technology into all multiple areas of its methodology, including media and popular culture, community mobilization, non-traditional partnerships, and shared learning.

2. Concept

This section illustrates the potential of video games for promoting social change and discusses Breakthrough's decision to enter the gaming arena, placing it in the historical context of immigrant rights and human rights issues.

2.1 Gaming for Social Change

Popular culture and media have been an integral part of Breakthrough's methodology from its inception, so gaming was a logical addition to its toolset. However, in 2006, gaming was only beginning to be considered an avenue for promoting social change. At that point, gaming was largely considered a distraction from more "worthy" activities; most parents, educators, and institutions firmly believed that at best, it trivialized serious issues, and, at worst, it provoked apathy, even violence. Although conventional wisdom had accepted video games as tools for teaching basic skills like spelling or math, it resisted — and to some degree, continues to resist — the idea that a video game might hold the potential for social good.

No other media may be as effective in reaching teens and young adults, though. According to the Pew Research Center, 97% of teens play computer, Web, portable, or console games. Another report from Pew reveals that most Millennials (those born after 1980) feel that technology brings individuals together rather than isolating them. In other words, video games grab and retain the attention of younger, wider audiences in a medium they're already familiar with, using tools they

already habitually use to connect and communicate. That makes gaming powerfully alluring to organizations in search of avenues to expand their audience and make a lasting impression.

Of course, games alone are inadequate to achieve substantive policy change; only sustained, multi-pronged efforts can do that. However, video games provide a safe microcosm in which players can try on other identities, inhabit other world views, and explore complex social issues. Games provide a playful, low-stress environment for imagining and instigating social change. And because games can be so thoroughly immersive, they have the potential to create quiet but lasting shifts in attitude, starting within the virtual world and extending into the physical one. By framing multifaceted human rights issues as individual stories within a broader context, a game can enhance awareness of entrenched problems and spark genuine empathy for the people affected by those problems. That empathy can, in turn, motivate players to participate in real-life advocacy aimed at changing policy.

As this report will show, when *ICED* placed players safely and temporarily in the shoes of someone for whom ordinary decisions and interactions can have dire consequences, they did in fact see their daily experiences from a new perspective. Pre- and post-game surveys (detailed later) showed measurable shifts in many players' attitudes about the issues after playing *ICED* — demonstrating that gaming can be a force for social justice.

2.2 The Issue of Immigrant Rights

The latest wave of anti-immigrant sentiment in the U.S. was already well underway in 1996, when the Clinton administration passed the Illegal Immigration Reform and Immigrant Responsibility Act (IIRIRA). IIRIRA is best known for requiring employers to verify that employees are legally permitted to work in the U.S., but it also completely overhauled the criteria and procedures for deportation. It gave officers of the Immigration and Naturalization Service (INS) the unilateral power, without judicial oversight, to deport non-citizens or refuse them entry to the U.S. It also created new crimes under which non-citizens can be fined or deported and lowered the threshold for criminal sentences and visa violations that trigger deportation. Most critically, IIRIRA also eliminated many of the previously available avenues for appealing INS or lower court decisions.

Then, of course, the 9/11 attacks triggered an instant surge of ethnic stereotyping and racial profiling. In the subsequent years, laws like the PATRIOT Act and the Homeland Security Act fostered this atmosphere of racism while chipping away at due process protections for citizens and immigrants alike. If mass detentions and deportations, rampant civil rights abuses of immigrants, or deaths in INS custody reached public awareness at all, they were often framed as the necessary and reasonable price of national security.

Since 1996, more than 2 million immigrant non-citizens, including long-term permanent residents, have been deported and detained in prisons. For affected families, particularly those already at socio-economic risk, U.S. immigration policies can be devastating. Often, the younger members of these families have grown up here and think of themselves as American. They are educated and acculturated by American schools, they work for American companies, they may even serve in the

American military. But in a climate of anti-immigrant sentiment, a minor infringement (or none at all) can cut off their schooling, deprive them of their jobs, or send them "back" to a country they don't consider home and may not even remember.

2.3 Raising Awareness Among Voting-Age Youth

It was against this background that Breakthrough decided in 2006 to publicize issues of racial profiling, deportation, and immigrant rights through a campaign called Value Families. Breakthrough's initial goal was to educate young people facing detention or deportation proceedings, either their own or a family member's, about the resources available to help them contest the process. The organization was already developing video clips and animations to highlight these issues when three students in a class together at CUNY-Brooklyn College's Performance and Interactive Media Arts program (Heidi Boisvert, Natalia Rodriguez, and Scarlet Rivera) approached Breakthrough about collaborating on a project using interactive gaming technologies for social change.

Breakthrough recognized the idea of an interactive game as an exciting opportunity. It would provide a direct way for Breakthrough to reach young people who might not be affected by detention and deportation, give them insight into the issues, and persuade them to take action — both as players and as actual participants in the game's development. As a safe, virtual space simulating the issues, a game would provide an engaging way for players to learn about, discuss, and apply critical thinking to the issues.

2.4 Outreach and Partnerships

To launch the project, Breakthrough worked closely with Heidi Boisvert and Natalia Rodriguez of PIMA. (Boisvert was also enrolled in Hunter College's Master of Fine Arts in Integrated Media Arts program.) A series of discussions helped the team create a relevant project with a realistically achievable scope: a downloadable video game that could serve as a public education tool about detention and deportation by demonstrating the lack of justice in immigration policy and, ideally, inspiring players to advocate for a more just and humane immigration system.

Breakthrough provided the students with resources about the broader issue of immigrant rights and connected them with key organizations in the New York City area and elsewhere, including Capital Area Immigrants' Rights (CAIR) Coalition, Games for Change, Global Kids, Detention Watch Network, the Rights Working Group of the Nancy Morawetz New York University Law School Immigrant Rights Clinic, Families for Freedom, and the New York Immigration Coalition. In addition, the team surveyed existing games for social change and the current state of policy and immigrant rights activism. This collaboration resulted in a body of research about detention, deportation, and the unjust nature of immigration policy.

In keeping with Breakthrough's methodology of building partnerships, the team approached schools and community organizations across New York City to recruit focus groups and beta testers.

Initially, the team intended to draw primarily from youth who were directly affected by detention and deportation, starting with a group of 12 (mostly Chinese) youth recruited by The Door: Center for Youth Alternatives. However, scheduling and language issues forced a new

strategy which, in the end, turned out to be a better approach: drawing the young designers from the audience Breakthrough hoped to reach: ordinary American teens. Their game-loving, media-saturated point of view guaranteed the feedback needed to keep the game interesting, relevant, and fun to play, while those who happened to be affected by the issues could provide nuances and narratives about the immigrant experience. In the end, they found more than 100 multi-ethnic and immigrant students aged 13-18 willing to help streamline the research content, make it accessible to their peers, and fit it into the constraints of the game.

Most youth participants came from schools where Breakthrough was already offering youth empowerment workshops and organizations with which it had existing relationships. The team also reached out to organizations and schools where team members had personal connections. Global Action Project-Immigrant Rights Project Group, for example, is a youth program housed in the same building as Breakthrough; this proximity allowed the *ICED* team to recruit students from its workshops. In another case, Breakthrough's legal interns brokered introductions at Newcomers High School, a public school in Queens that specifically serves new immigrants.

This process was more than just a stage of game development; it was integral to Breakthrough's goal of involving youth as change agents. The focus groups were organized as skill-building, design, and conceptualization workshops, giving students the opportunity to:

- learn about software used to build video games
- consider video games as a medium for social change education

- discover new channels for expressing complex social issues
- engage with real-life testimonials and narratives of racism, detention and deportation, and other immigration issues through documentary films, case stories, news articles, and our Breakthrough podcasts
- play an active role in representing and telling stories about the immigrant experience
- learn to work collaboratively in media development
- build confidence and become spokespeople for the concerns underlying Breakthrough's Value Families Campaign (notably, many students later reported that the workshops made them want to educate their peers about human rights and the media)

Simultaneously, Breakthrough and the PIMA students reached out to their personal connections to find collaborators to help them bring the game to life. This led them to music industry contacts who composed music, sound designers who created sound effects, texture photographers and graphic designers who gave the game its distinctive look, actors who provided voiceovers, and 3D programmers and modelers who built the game on the free Torque Game Builder Engine. In the end, *ICED* included collaborators from Manhattan to Milwaukee to Melbourne, Australia — many of them willing to donate their talents free or at greatly reduced rates. As a result of these strategic relationships, Breakthrough was able to complete the project on a budget of just \$50,000 — a fraction of the usual cost of developing a video game.

3. Course

This section describes how Breakthrough developed, tested, and disseminated *ICED* with the integral assistance of partners that included the game's target audience: teens who play video games.

3.1 Message and Mechanics

Phase One of creating *ICED* took place in spring 2006. It included teens from Newcomers High School, the Urban Assembly Media High School, and Families for Freedom/Northern Manhattan Coalition for Immigrant Rights. Through storytelling workshops, these teens established the baseline for the game: the layout and look of the urban landscape in the first level and the detention center in the second level, the actions characters would be able to take, and the ways in which players could earn or lose points. The Families for Freedom participants also helped make the game deeper and more realistic by sharing their personal stories: how and why they were detained, the experience of being detained, what the proceedings were like, the emotional and financial impact of the situation, and how they planned to cope if they were in fact deported.

Most critically, the storytelling workshops were the birthplace of the five main game characters. Breakthrough asked the teens to combine and distill multiple real-life case studies into a handful of realistic characters — someone who would generate an "Oh yeah, I know someone like that" reaction in the target audience. The resulting five fictional but true-to-life

composites were a deliberately diverse mix of ethnicity, age, appearance, and background:

1. Suki, 23, a college student from Japan with an F-1 student visa. He didn't know he would lose his full-time student status by dropping a class. Now he's at risk of being deported before he can finish his degree.
2. Marc, 22, an asylum-seeker from Haiti who received legal permanent resident (green card) status. He joined the U.S. military and served in Iraq, but now struggles with post-traumatic stress that makes it hard for him to stay employed as his green card requires.
3. Ayesha, 16, a high school student from India with a green card. A Muslim, she was detained and threatened with deportation after writing a class paper critical of the PATRIOT Act.
4. Anna, 20, an aspiring actress from Poland who believes she became a citizen at 13. She could be detained or deported for a minor offense because an unethical lawyer took her parents' money and never submitted her application for citizenship.
5. Javier, 20, a food delivery boy from Mexico, came to the U.S. with his parents at age 5 on a tourist visa that expired long ago. He has grown up as an American and wants to go to college, but can't apply for financial aid without risking deportation.

The students worked in groups to develop storyboards and scripts, role-playing to determine how characters would act and react in various environments. They also decided collectively whether earning points by answering questions and making civic-minded choices should

always allow characters to earn citizenship, or whether the game should have a more realistic ending in which they were more likely to be detained and/or deported.

Phase Two, in summer 2006, was originally to have been a 10-week program teaching students at the Urban Assembly Media High School the software skills necessary to do mapping and modeling for the game. Unfortunately, the program was cancelled when the New York State Department of Education failed to make funding available. The game development team continued intermittent work through the summer without youth participation.

Phase Three, in fall 2006, invited students at Urban Assembly Media High School, Global Action Project, and several other small groups to serve as beta testers. These teens tested and critiqued the game's design as well as the content and tone of the voiceover scripts and informational popup boxes.

Unsurprisingly, the students had hoped they were creating a game with all the scope, intensity, and complexity of mainstream first-person games like *Grand Theft Auto*. The team needed to explain that Breakthrough had an extremely limited budget and resources, and that the students needed to help squeeze their multi-million-dollar ideas into those constraints. Despite their disappointment that they weren't going to create the next *Final Fantasy*, the students still liked the idea of replacing a boring classroom lecture with something more entertaining but still educational — and their input was crucial to refining *ICED*.

Under their influence, the game's language became more street-wise and succinct, the characters more detailed, and the controls clearer. The students insisted on adding comic relief in the form of several dozen voices from everyone from an army recruiter on the street to cafeteria

staff in the detention center. The students also suggested that the game begin with a dramatic splash screen featuring rolling facts and a "movie announcer" voiceover. (This voiceover was eventually provided pro bono by an actor whose resonant voice was familiar to the students from McDonald's commercials.)

The beta testers also influenced what was left out of *ICED* — in particular, the glossary of immigration terms, like "misdemeanor" or "green card," that many players might not understand if they encountered them in the course of the game. Ultimately, the goal of minimizing text within the game won out, especially after the beta testers confirmed that they were unlikely to interrupt their game play to follow a link to the definitions of unfamiliar words.

Phase Four, from winter 2006 through spring 2007, turned all the results of the design and beta testing into an actual game. To facilitate communication, the team members created a master design document describing all the game elements, documenting expectations and agreements, and defining what had yet to be completed. Giving every team member access to the same information kept the project on track, on time, and within the agreed-on parameters. In addition, the participants and game developers used a group blog at aliennationgame.blogspot.com to comment on their experiences.

ICED emerged as a fully realized two-level game. At the beginning, players select their identity. They then use the mouse or arrow buttons to navigate a 3D cityscape of streets and storefronts. They gain or lose points by rolling over lightbulbs that pop up questions about immigration and choosing how to respond to ethical dilemmas such as whether to buy counterfeit goods from a street vendor, all while trying to dodge roving immigration officers who will immediately send them to a detention center. In the

detention center, the second level of the game, they must try to find, contact, and pay for legal representation while enduring unjust conditions and separation from friends and family. The goal for each character is to earn U.S. citizenship by accumulating enough points or winning it in a hearing, but the outcome isn't guaranteed; characters can also be held in detention or deported. At the end of the game, players find out what happened to the real people on whom the characters were based.

3.2 Curriculum and Discussion Guide

Although *ICED* can be played alone, Breakthrough wanted to place it in a broader educational context by developing a curriculum and discussion guide for high school and college students. (See <http://www.icedgame.com/#4>.)

The **curriculum** is a 115-page document designed to help classroom teachers not only use *ICED* to spur discussion of human rights and American values as they relate to immigration issues, but also to tie the game to New York State standards for social studies and English as well as Regents Exam themes in global history and U.S. history and government.

Although the curriculum is intended for use with *ICED* and incorporates time for game play, it is also designed to be used without the video game so teachers in schools with limited technology can still teach about immigration laws. Breakthrough recommends dedicating ten 45-minute class periods to the curriculum, as follows:

Day 1 Introduction to the unit and *ICED*, discussion of the concept of due process

Day 2 Students learn game rules, play the game, and discuss

Day 3 Lesson One: Human Rights Basics: What All Americans Need to Know

Days 4 and 5 Lesson Two: Human Rights and Immigration Laws

Days 6 and 7 Lesson Three: Immigration Law in the United States

Day 8 Lesson Four: American Values? The Human Rights of Immigrants Post-9/11

Days 9 and 10 Take Action and unit wrap-up

The curriculum introduces the game itself and sets out four lesson plans, with discussion topics and essay questions, all designed to emphasize the overarching theme that allowing the government to deny due process and human rights to some people risks the freedoms of all people. As the curriculum explains in the section providing context for teachers,

The United States is founded on principles of individual and human rights. These include: economic rights, such as the right to food and shelter, and civil and political rights, such as voting, the right to equal treatment under the law, and due process. However, today in the United States fundamental freedoms are being denied to immigrants, and this threatens the American way of life. United States immigration policy has been crafted in a way that calls into question many rights that are internationally and nationally guaranteed to all human beings.

Current United States immigration laws have devastated our immigrant communities, as they

now live in fear of detention and deportation without due process. Many think that such policies only affect undocumented migrants. This is not true: legal permanent residents, legal temporary residents such as students or professionals, and asylum seekers are all at risk because of these policies. In fact, everyone's rights are at risk because it calls into question the inalienability of the value of due process.

In addition, the curriculum emphasizes the importance of encouraging students to take action for change — for example, by posting a link to a human rights organization on their Facebook Wall or by writing a letter to their city council member.

The **discussion guide** is a 66-page handbook for non-classroom settings, such as after-school programs or community groups. The guide is meant to be used with the game, but much of it can stand alone. For groups without access to a computer and facilitators who need to translate the game's content into other languages, the guide includes a detailed description of the written material in *ICED*, including all the "myths and facts" questions in both levels of the game, all the civic actions and ethical choices, all potential responses, and the final outcome for each character.

Like the curriculum, the discussion guide introduces *ICED* and the rules of play as well as facts and statistics about the ways in which unfair immigration laws conflict with the American ideals of justice and freedom. The discussion guide also includes two interactive exercises. One activity, for use before a group plays *ICED* for the first time, begins with a short music video introducing the basic concepts of human rights. Group members then respond individually to statements like "Everyone is born with the same human rights" and "It is fair to treat legal permanent residents differently from citizens."

Afterwards, the group discusses which statements they found most challenging to respond to, as well as their feelings about showing their opinions to the rest of the group. The second activity reinforces the lessons in the game by asking group members to discuss their feelings about their characters' outcomes. They then watch and discuss videos of interviews with real-world detainees whose stories parallel those in the game.

The discussion guide includes the glossary left out of the video game, with basic terms like "deportation" and "visa" and more complex concepts like "informal economy" and "disproportionate punishment." It also contains a resource list including books, videos, reports, and websites about immigrant rights. Most critically, it includes a list of actions facilitators can suggest to participants motivated by what they've learned by playing *ICED*: asking their favorite bloggers to write about *ICED*, signing the online Universal Declaration of Human Rights, writing to lawmakers using a provided template, handing out *ICED* postcards at community events, writing a letter to the editor, and many other ideas.

3.3 Dissemination and Publicity Strategy

Breakthrough conducted a six-month prep, launch, and follow-up media campaign targeting a diverse audience: political and issues-based media, pop culture and entertainment media, the gaming community, and education trade publications as well as other non-profits.

The media campaign included a press release, video B-roll and images drawn from the game, and three fact sheets, one focused on the game and its technology, one setting out Breakthrough's position on the issues, with corroborating sources and statistics, and one about the

characters and their stories. Additionally, Breakthrough presented a plan for the game at the 2006 Games for Change Conference and several 2007 media and social change conferences. By reaching out to a broad audience and tying the campaign to current events including the 2008 election cycle, in which immigration was a hotly disputed topic, Breakthrough achieved a substantial amount of coverage. Almost 200 outlets around the world mentioned *ICED*, in formats ranging from traditional print and broadcast media to websites, blogs, and social networks. The coverage reached an estimated 28 million people.

Breakthrough made *ICED* available for download on both www.breakthrough.tv and a dedicated site, icedgame.com. In addition, a select number of media contacts and other "influencers" received the game on a mini-CD packaged in a booklet designed to resemble a U.S. passport and succinctly introducing the issues, the game, the characters, and Breakthrough itself.

The game was also available for download on gaming sites like GamersHell.com and youth networking and media channels including Myspace, YouTube, and Teen Second Life, a 3D virtual world. Breakthrough also hosted a Teen Second Life virtual event for participants to "meet" the five *ICED* characters, watch a demo of the game, and learn about immigration issues. Once the game launched, Breakthrough also repurposed the blog the game developers and youth participants had used during game development, reopening it to serve as a community discussion space.

Word of mouth was another indispensable publicity tool. Breakthrough asked youth empowerment, education, human rights, and immigrant rights organizations in their broader networks to tell their members and clients about *ICED*. Several of the students who helped develop the game had their own ideas about making it "go viral"

among their peers. With Breakthrough's help, these students created a "marketing consultant" group and did a semester-long internship preparing marketing materials for use on social networking sites, gaming sites, and teen and gaming blogs.

It's critical to note that when *ICED* was initially released, Facebook was roughly one-eighth the size it is in early 2012, Twitter was barely a year old, the iPhone had existed for less than a year, and no one had ever heard the phrase "there's an app for that." If Breakthrough were to release the game today, it would be able to leverage these social and mobile technologies in ways that weren't possible in 2008.

4. Results

This section details how *ICED* achieved global reach, even on a shoestring budget, and measurably increased players' awareness of immigrant rights and human rights issues.

4.1 Overview

ICED was launched in February 2008. Since then, it has had the following reach and impact:

- As of August 2011 (the latest date for which figures are available), Breakthrough estimates that more than 131,000 people in 175 countries have visited the *ICED* website to learn about the game and the issues it addresses.
- Mainstream media coverage about the game reached 28 million people, thereby bringing the issues of fairness and due process to audiences much wider than the player community itself.
- Players are measurably more aware of and knowledgeable about U.S. immigration and deportation policies, proving the value of gaming as an educational tool.
- Players also report that the game has positively changed their attitudes toward immigrants' rights, corroborating Breakthrough's methodology of using mainstream culture to build empathy and support for human rights.
- Numerous organizations have used *ICED* in classes and community groups as an

accessible, user-friendly tool for generating discussion.

- Most importantly, *ICED* has proved to be an important tool for reframing the public and private conversation around immigration in the U.S. from criminalization to fairness and due process.

4.2 Numbers Reached

Even without a mainstream game company's technology, name recognition, budget, or staff to carry out a massive, costly launch campaign, *ICED* has spread throughout the world. Analytics from icedgame.com show that from February 2008 through August 2011:

- The site attracted 154,239 visits from 131,318 unique visitors.
- Site traffic came from 175 countries and territories around the world, from Sweden to South Africa.
- Roughly 71% of site traffic was from the U.S.. The next highest sources were Brazil (6%), Mexico (4.2%), and Canada (1.9%).
- More than 18,000 people downloaded the game.

These statistics apply only to the dedicated website icedgame.com; they don't include Breakthrough's own site or any other sites that hosted the game for download. Because the game was designed to be redistributed an unlimited number of times and played by an unlimited number of players, Breakthrough has no way to know exactly how many copies of the game exist, nor how many people have played it. However, given the wide

distribution and broad media coverage, it is entirely possible that *ICED* has been played hundreds of thousands of times.

4.3 Player Data Collection

Breakthrough engaged the Center for Children and Technology at Education Development Center (EDC/CCT), an international, non-profit organization dedicated to enhancing learning and promoting health, to develop pre- and post-game surveys within the game itself. A clearly visible tab on the launch screen of *ICED* directs players to a survey designed to evaluate two metrics:

1. Does playing the game increase players' knowledge about U.S. immigration and deportation policies?
2. Does playing the game affect players' attitudes about U.S. immigration and deportation policies, and if so, how?

The brief questionnaire begins with a request for players to return to the survey tab to answer the questions again immediately after playing. The "exit" tab to quit the game also offers players a chance to take the post-game survey before quitting the program. The pre- and post-game surveys contain the same multiple-choice questions about immigration issues; the post-game survey also includes open-ended questions.

EDC/CCT analyzed the results in May 2008 and reported the following:

- Of 6,007 survey respondents, 5,148 completed only the pre-game survey, 730 completed only the post-game survey, and 129 completed both the pre- and post-game surveys.
- The respondents could be categorized as follows:
- 60% male, 22% female, 18% unspecified
- Median age of 25 for those who reported their age
- 46% had personal experience with U.S. immigration, either themselves or through friends, family, or their community

4.4 Player Survey Findings

Playing *ICED* measurably increased players' knowledge about U.S. immigration and deportation policies. The respondents who answered both surveys averaged 52.2% correct answers before game play and 70.9% after. EDC/CCT extrapolated that players who only answered the pre-game survey would have showed similar results if they had also answered the post-game survey.

The questions that showed the greatest increase in correct answers, in order of that increase, were:

Question	Correct Answer	% Correct Before Game	% Correct After Game	% increase
Immigrants are guaranteed the right to obtain an attorney who can fight for them.	False	36.4%	72.1%	35.7%
Because the police don't ask about immigration issues, legal and undocumented immigrants are as free to report crimes to the police as citizens are.	False	44.1%	76.2%	32.1%
Like all U.S. citizens who are prisoners, immigrants have access to an attorney to argue for them while they are in detention.	False	39%	59.8%	20.8%
Legal and undocumented immigrants have to be cautious about reporting crimes that they witness because they might get detained or deported.	True	50.4%	65%	14.6%
The U.S. allows the majority of asylum seekers to stay in the country.	True	50.4%	63.9%	13.5%

- More than half (56.5%) of respondents also indicated that playing the game had changed their attitudes about the ways immigrants are treated in the U.S. However, no respondents said the game had *reversed* the attitudes they held before game play. Playing the game may have reinforced players' existing attitudes, making neutral or positive attitudes more positive and negative attitudes more negative.
- In their responses to the open-ended questions, some players reported that playing the game improved their understanding of the issues from immigrants' points of view, especially their sense of how precarious daily life can be for

non-citizens. Several responses pointed to specific things players learned in the course of the game — for example, that immigrants contribute significantly to the economy, that corporations profit from detention centers, and that immigrants may put themselves at risk by reporting a crime.

- Some players argued that since the game clearly has a strong point of view, the facts it presented might not be trustworthy. They interpreted the lack of links to factual sources from within the game as proof of bias.
- Several players were concerned that by discussing how reporting crimes can put

immigrants at risk of detention and deportation, the game might endanger public safety by creating and reinforcing mistrust and even fear of law enforcement.

EDC/CCT concluded that *ICED* effectively educated and influenced a broad audience. It also offered suggestions for improving future games:

- Creating scenarios that require players to apply information they've learned within the game to continue progressing in the game, rather than presenting complex issues as true/false.
- Providing links to the sources of game content to make it easier to explore material and its credibility from within the game.
- Designing games to send players automatically to pre- and post-play surveys (i.e. making surveys opt-out rather than opt-in) in order to improve the ability to gather data and make it more likely players will answer surveys both before and after playing.
- Adding open-ended questions to pre-play as well as post-play surveys to further explore whether and how game play influences attitudes.

4.5 Media Response

The combination of broad PR outreach, controversial subject matter, and sheer novelty (at the time) of gaming as a social change agent gave *ICED* a significant presence in a wide variety of media:

- international and national print and broadcast news organizations including CNN, BBC,

Reuters, the Associated Press, Telemundo, Univision, and Current TV

- major newspapers such as the *Los Angeles Times* and the *Miami Herald*
- regional papers like the *Arizona Republic* and *New York Metro*
- foreign-language publications such as *El Diario* (Spanish) and *Ming Pao Daily* (Chinese)
- national specialty publications like *The Nation* (magazine of progressive politics) and *National Catholic Reporter* (journal of Catholic news)
- education journals
- ABC, NBC, CBS, Fox, and several of their local affiliates
- syndicated and local talk radio in more than 100 markets
- gaming blogs and websites such as *Game Politics* and *IGN.com*
- political blogs and websites at all points on the spectrum, from *Huffington Post* to *Free Republic*
- technology blogs and websites including *Wired*, *Technorati*, and *Boing Boing*
- education blogs and websites like *Education Week*
- regional blogs and websites including *Gothamist* and *Metroblogging LA*
- blogs and websites for and about specific ethnic groups, such as *Latina.com* and *Slant Eye for the Round Eye*

- media in other countries, including India, Brazil, and Belgium

Most coverage fell into one of three categories: *ICED* as a game, *ICED* as an example of gaming for education and/or social change, and *ICED* as a way to approach the specific issue of immigrant rights.

Discussion of *ICED* as a game was sparse and mixed. For the most part, gaming sites simply announced that *ICED* had been released, sometimes using a quote or fact from Breakthrough's press release. *Game Daily*, a daily online journal of the gaming industry, was a rare exception; it ran a lengthy interview exploring both the issues behind the game and the process of developing it. On the other hand, some gaming critics were clearly judging a small downloadable game created by a nonprofit on a shoestring with largely volunteer labor against mainstream console or web-based games created by entertainment companies with vast budgets. Gaming site *Play This Thing*, for example, gave *ICED* a contemptuous review, calling the content "heavy-handed" and the design a "frustrating" waste of the 3D rendering technology used to create it. This is an ongoing problem in the gaming-for-change space: although games can act as a catalyst for moving an issue into the public domain, players can easily be disappointed by an experience that can't compete with something offered by the mainstream gaming industry.

The game received more attention as an example of the broader concept of video games as a driver for social change. ABC News, for example, reported on the game and classified it among other games examining issues such as violence in Darfur, the Palestinian/Israeli conflict, and the way the Electoral College works. (To put this emerging trend in context, 2008 marked only the fifth annual Games for Change Festival, so the mere existence of socially oriented role-playing games was still

a novelty.) The influential technology and pop culture blog *Boing Boing* also described *ICED* as "an amazing story and a great site," a review that undoubtedly drove traffic to the game. And the green marketing blog *Greenormal* called *ICED* "compelling" proof of the social potential of first-person video games.

By far the majority of coverage of *ICED*, though, was in the context of the national controversy over immigrant rights. The game was released not just in an election year, but during a presidential campaign in which immigration and ethnicity itself were heated issues. It was in this context that Breakthrough had to push back, strongly and repeatedly, against the narrative of "immigrant = illegal" which has become deeply embedded in American mass culture.

Much of the mainstream media coverage reported straightforwardly on *ICED* and the issues it addresses. For example, Larry Magid, tech reporter for CBS News, concluded a report about the game by noting that the game "helps to understand that there are human beings whose lives are being affected, many of whom are children and teens who may have never violated U.S. law."

However, a distinct segment of coverage conflated immigration in general with illegal immigration in particular. A syndicated TV news segment shown on at least six stations across the country described *ICED* as "a day in the life of an illegal immigrant." Even a generally favorable report from *ThinkMTV* (now called *MTV Act*), a blog encouraging teens to take action on social issues, referred to *ICED* as "based on illegal immigrants." Right-wing blog *Infowars* described it in even less accurate and more incendiary terms: "a video game that essentially trains illegal aliens how to sneak across the border and avoid border patrol agents and cops" and "an effort to

inculcate middle class Americans into the belief that illegal immigration is a human rights issue."

The Minutemen, an anti-immigration organization, even sent out a press advisory shortly after the release of *ICED* signaling the group's availability to speak to the media in opposition to the game. The advisory, full of invented "facts" about *ICED*, accused Breakthrough of setting out to create "contempt for U.S. immigration law." Media outlets including CNN and several ABC affiliates covered this advisory without contacting Breakthrough for press materials or a quote.

The fact that anti-immigration groups felt compelled to address the existence of *ICED* is itself proof of the game's impact. Rather than argue the accuracy of their reactions, Breakthrough chose to leverage this negative attention by treating it as a further opportunity to reframe the discussion. Breakthrough founder and president Mallika Dutt published an opinion piece titled "When Did 'Immigrant' Become a Dirty Word?" in the Huffington Post in March 2008, making this reframing explicit. "I am now deeply disturbed by the lack of impunity with which our government has systematically stripped even legal permanent residents of due process rights and basic protections," she wrote. "Not only is there a lack of support for respecting due process and human rights in detention and deportation policies, but to add insult to injury, any discussion of these issues is immediately framed in an anti-illegal immigrant, anti-amnesty framework."

4.6 Audience Impact

In retrospect, Breakthrough has questioned whether including an undocumented character in *ICED* was a mistake that distracted from the larger narrative of how easily legal immigrants can run afoul of unfair immigration laws. However, the game's fundamental message is that everyone — citizens and immigrants, documented and undocumented — has human rights. And the U.S. government found the message hard to ignore. The Orange County (Calif.) *Register* quoted a spokesperson for U.S. Immigration and Customs Enforcement calling *ICED* "pure fiction" and accusing Breakthrough of trivializing the issue of illegal immigration. When Julie Meyers, then Secretary of Homeland Security, made a public statement denouncing *ICED* for oversimplifying a complicated issue, Breakthrough considered it a sign that the game was beginning to influence the conversation about immigrant rights, even at the highest levels of the U.S. government.

In the months after the game's release, Dutt and other Breakthrough staffers gave more than 200 interviews, all emphasizing that *ICED* is not about criminality, but about a broken immigration system which is complex, inflexible, and deeply unfair. Through these interviews, as well as blog comments and other activities, Breakthrough focused on continually redirecting the conversation back to the issue of due process under the law for all people, regardless of their immigration status.

Although detention and deportation remain an ongoing problem, *ICED* and the conversation it launched have begun to shift popular culture in the U.S. toward a recognition that the immigration system is riddled with problems and that immigrant rights are human rights. In 2008, a game suggesting that the U.S. might have human rights problems sparked a media pushback. Just three years later, Breakthrough launched *America 2049*,

an award-nominated multi-platform alternate reality game that asks players to work together to save democracy and human rights in a near-future America splintered by bias and fear. Despite this explicit description, the coverage lacked the level of indignation and denial that marked coverage of *ICED*. In fact, celebrities, museums, and cultural institutions eagerly agreed to participate in *America 2049*, which drew mainstream media coverage from the likes of *The Atlantic*, *Salon*, Time.com, and WaPo.com, the online site of the *Washington Post* — and media outlets did not automatically put "illegal" in front of the word "immigration" as they did with *ICED*.

It may be that *America 2049* seemed less immediate and accusatory because it placed issues in an imaginary reality. However, it's also possible that people who don't connect with immigrant rights issues when they stand alone find it easier to engage with them in the broader context of other human rights issues.

5. Conclusion

5.1 Lessons and Looking Forward

Tools and technology for developing and disseminating games have evolved significantly since *ICED* was released — Facebook has grown dramatically, Twitter and other social media tools have exploded in popularity, and mobile technology now allows anytime, anywhere access to gaming. Yet Breakthrough's work on *ICED* continue to inform its creation of "serious games" designed to get people thinking about, talking about, and acting on human rights issues. These are some of the lessons of *ICED*:

- Make access to the game as easy as possible. Breakthrough didn't anticipate how many people would want to download *ICED* on its first day. The demand overloaded the servers for icedgame.com, crashing the site for one day, slowing it for others, and forcing the organization to buy more server space to accommodate all the download requests. As a result, Breakthrough has made all subsequent campaigns online-only. In fact, its most recent game, *America 2049*, is hosted primarily on Facebook, which can support orders of magnitude more network traffic.
- Build partnerships. Working with other organizations, schools, community groups, and personal networks proved absolutely critical in promoting *ICED* as well as creating it. The more partners, the more potential audiences for the game — and unlikely partnerships can lead to

new opportunities, as Breakthrough learned when an employee's networking connected the game developers to a programmer and modeler in Australia who brought the characters to 3D life.

- Involve the core audience in the creation process. Who knows better what makes a game appealing than the people who will eventually play it?
- Whip up anticipation well before launch. *ICED* might have reached a broader audience if it had had more press coverage before its release than a handful of articles about Breakthrough's presentation at the 2007 Games for Change conference. Breakthrough decided to take a page from the mainstream gaming industry's book for *America 2049* by "pre-seeding" its audience before launch with a Facebook page, a trailer, and other publicity designed to make people curious and ready to play.
- Include tools to measure impact. The technical problems that crashed icedgame.com also prevented an accurate count of how many people visited the site and how many people downloaded the game. In addition, as mentioned earlier, designing the game for easy download and sharing made it impossible to tell how often people who downloaded the game actually played it or how many people passed it along by posting it to other sites or sending it to friends. Hosting a game online allows much more precise tracking. Tracking generates the data needed to determine a game's reach and impact — and to improve it for better results in the next iteration.

6. Appendices

6.1 ICED Credits

Executive Producer

Mallika Dutt

Breakthrough

Lead Designer/Developer

Heidi J. Boisvert

Designer/Developer

Natalia Rodriguez

Programmers

Silhouette Studios/Ashley Leach

Ken Vollmer

Website Designer

Chris Delia

Sound Engineers

John Randall

Louis Spitzer

Graphic Designer

Mike Davis

Character Modeler

Silhouette Studios/Andrew Osborne

Additional Modeling

Kenneth McCall

Fabio Correador

Texture Photographer

Alicia Avila Jimenez

Illustrator

Emma Zakarevicius

Schools

Newcomers High School

The Urban Assembly Media High School

The Renaissance Charter School

Elizabeth Irwin High School

Student voices

Chelsea Oceans

Daniel Feliciano

Anthony Mckenzie

Penka Nikolova

Francisco Ruiz

Daniel Laverde

Santiago Ruiz

Escarlys de la Cruz

Music Licensing

DJ Serious/Kevin Kocher

Organizations

CAIR Coalition

City Scholars

Detention Watch Network

The Door

Families For Freedom

Games for Change

Global Kids

NYU Law School Immigrant Rights Clinic

Rights Working Group

Collaborators/Consultants

Jenny Polak

Nick Barat

Fader Magazine

Audio Research Records

Luissana Santibanez

Scarlet Rivera

Special thanks

Amy Robinson

Tammy Kim

Kumar Rao

Hobo Studios