

Ring doorbell video

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Created on: May 1, 2025 8:13 AM
Changed on: June 30, 2025 7:30 AM

Context of use: Education
Level of education: Master

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Impact on society

What impact is expected from your technology?

What is exactly the problem? Is it really a problem? Are you sure?

One of the main problems the Ring Doorbell tries to solve is the lack of security and awareness around the entrance of a home. Many people don't know who is at their door, especially when they're not at home. For me, the problem was also about missing online deliveries and not being able to speak with delivery drivers. Based on my experience, this is a real and common problem in many homes, especially for people who work or travel often.

Are you sure that this technology is solving the RIGHT problem?

Yes, I believe Ring is addressing a real and relevant problem. It improves how people manage visitors and deliveries and adds a layer of safety. In my personal use, I was finally able to receive packages properly and check who was at the door without being home. So yes, the product focuses on the right issue and offers a direct solution however this added safety may come at the cost of the privacy for visitors and neighbours, which requires careful design consideration

How is this technology going to solve the problem?

The ring doorbell helps solve the problem by sending live notifications when someone is at the door. I can open the app, see a live video feed, and talk to the visitor directly. It also records video, which is helpful in case something happens. For deliveries, it helped me and my wife avoid missed packages and made communication with delivery people easier

What negative effects do you expect from this technology?

One negative effect is the loss of privacy. People who live with you or visit may feel uncomfortable knowing they're being recorded. Also, there are concerns about how the data is used by the company or if it's shared with third parties like the police. Another issue is the high sensitivity of the motion sensor, which sometimes sends too many alerts for small or distant movements, making it annoying

In what way is this technology contributing to a world you want to live in?

contributes to a world where people feel safer and more in control of their homes. It allows me to see who is at my door, even when I'm not there, and to make sure my family is safe. In a world where many people work outside or travel a lot, this kind of technology helps reduce stress and supports a more

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connected lifestyle. It fits into a future where smart tools make daily life more secure and efficient

Now that you have thought hard about the impact of this technology on society (by filling out the questions above), what improvements would you like to make to the technology? List them below.

I believe it could be improved in a few important ways.

1. The live video feature and cloud storage should be available without a paid subscription, since these are basic functions that users expect after buying the device.
2. The motion detection system should be more accurate to avoid unnecessary alerts when neighbours or people far away trigger it.
3. The device should recognise faces of household members and reduce alerts when they are detected, to avoid disturbing the user

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Hateful and criminal actors

What can bad actors do with your technology?

In which way can the technology be used to break the law or avoid the consequences of breaking the law?

If someone hacks ring, they could use it to check when a house is empty. Also, deleting or hiding recordings quickly might help someone cover up illegal actions

Can fakers, thieves or scammers abuse the technology?

I think yes , for example, a thief might test the motion range to avoid being seen. Scammers could pretend to be delivery people and use the camera to see if anyone is home before doing something wrong

Can the technology be used against certain (ethnic) groups or (social) classes?

Yes, someone might use ring to record people based on how they look or where theyre from. This can lead to unfair judgment or treating some groups with more suspicion than others

In which way can bad actors use this technology to pit certain groups against each other? These groups can be, but are not constrained to, ethnic, social, political or religious groups.

If videos are shared out of context, it could cause conflict between neighbors or communities. Some people may feel watched more than others and that can damage trust

How could bad actors use this technology to subvert or attack the truth?

Videos could be edited or cut in a way that gives a wrong story. In the future, someone might use fake audio or deepfake tools with ring videos to create false accusations

Now that you have thought hard about how bad actors can impact this technology, what improvements would you like to make? List them below.

I would add a feature that alerts the user when the same unknown person appears multiple times around the door. The system should also warn about suspicious access or changes to the account. Users should have more control over who can view or share the videos, and there should be better protection from hacking or abuse

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Privacy

Are you considering the privacy & personal data of the users of your technology?

Does the technology register personal data? If yes, what personal data?

Yes, ring collects video and audio recordings, names, email addresses, Wi-Fi information, phone data, and sometimes even facial features from people who appear in the footage

Do you think the technology invades the privacy of the stakeholders? If yes, in what way?

Yes, especially when other people like visitors or neighbors don't know they are being recorded. Even family members may feel uncomfortable knowing that every move near the door is captured and saved

Is the technology is compliant with prevailing privacy and data protection law? Can you indicate why?

It follows some laws like GDPR, but there are concerns. For example, users are not always fully aware that the videos can be shared with police or third parties without clear permission, which raises questions about transparency

Does the technology mitigate privacy and data protection risks/concerns (privacy by design)? Please indicate how.

ring doorbell app allows users to control some settings like disabling audio, and who to share videos with. But still, the company keeps control of the cloud system, and not all privacy options are easy to understand

In which way can you imagine a future impact of the collection of personal data?

In the future, these videos could be used with AI tools to recognize faces or even track people's habits. This might help with safety, but also increases the risk of surveillance or maybe profiling

Now that you have thought hard about privacy and data protection, what improvements would you like to make? List them below.

Stronger privacy notifications when sharing is active, easier tools to delete recordings, and better control over what data is stored and for how long. Also, more education for users about how their data can be used

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Human values

How does the technology affect your human values?

How is the identity of the (intended) users affected by the technology?

The user may start to feel like a guard or someone who always watches the door. This can be helpful, but also makes some people more nervous or careful than they need to be

How does the technology influence the users' autonomy?

more control over their home. But because it sends alerts often, the user may feel like they always need to look at their phone and cant relax

What is the effect of the technology on the health and/or well-being of users?

The device improves peace of mind when away from home, but excessive notifications can cause stress and reduce mental relaxation, especially when they are not accurately filtered. (can not know who are living in the home and who are not)

Now that you have thought hard about the impact of your technology on human values, what improvements would you like to make to the technology? List them below.

It would be better if Ring could stop sending alerts when it sees someone who lives in the house. Also, it should let users turn off alerts during sleep or busy times

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Stakeholders

Have you considered all stakeholders?

Who are the main users/targetgroups/stakeholders for this technology? Think about the intended context by answering these questions.

Name of the stakeholder

1. • eople who live in the house

How is this stakeholder affected?

They use ring to protect their home, but they also get many alerts, and sometimes feel stressed or watched

Did you consult the stakeholder?

Yes

Are you going to take this stakeholder into account?

Yes

Name of the stakeholder

neighbours

How is this stakeholder affected?

They might appear in recordings without knowing it, which can make them feel uncomfortable or like they are being watched

Did you consult the stakeholder?

No

Are you going to take this stakeholder into account?

Yes

Name of the stakeholder

Delivery workers

How is this stakeholder affected?

They are recorded often, even if they dont want to be. Some might not feel okay being filmed during their job

Did you consult the stakeholder?

No

Are you going to take this stakeholder into account?

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Yes

Name of the stakeholder

Amazon

How is this stakeholder affected?

Amazon is responsible for managing the app, storing the videos, and updating the system. They also benefit from user data and subscriptions

Did you consult the stakeholder?

No

Are you going to take this stakeholder into account?

Yes

Did you consider all stakeholders, even the ones that might not be a user or target group, but still might be of interest?

Name of the stakeholder

Data protection authorities

How is this stakeholder affected?

They are responsible for ensuring that the technology complies with privacy laws.

Did you consult the stakeholder?

No

Are you going to take this stakeholder into account?

Yes

Now that you have thought hard about all stakeholders, what improvements would you like to make? List them below.

1.Include all key groups: Add local authorities, delivery companies, and neighbors as stakeholders, since they are also affected by the doorbells data and alerts.

2.Improve communication: Clearly inform all stakeholders (not just users) about how the technology works and how it might impact them.

3.Create regular feedback moments: Ask for feedback from different stakeholder groups to improve the technology based on their needs and concerns.

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Data

Is data in your technology properly used?

Are you familiar with the fundamental shortcomings and pitfalls of data and do you take this sufficiently into account in the technology?

Yes, I know that personal data can be misused or shared without consent.

With ring, one of the big concerns is that the company or others might access the video footage without clear permission from the user

How does the technology organize continuous improvement when it comes to the use of data?

Ring updates its app and system regularly, which helps fix bugs and improve data security. But users are not always informed about how their data is used or improved

How will the technology keep the insights that it identifies with data sustainable over time?

ring uses cloud storage and smart systems to save data and learn from it. For example, it can recognize repeated movements or familiar faces. But over time, storing too much video can create risks if the data is not cleaned or deleted properly. Its important that the system gives users options to manage this

In what way do you consider the fact that data is collected from the users?

It is important to be transparent with users. People should know exactly what kind of data is collected, how it is used, and who can access it. With ring, some users feel they are not fully in control of their data

Now that you have thought hard about the impact of data on this technology, what improvements would you like to make? List them below.

Amazon should explain clearly how long videos are stored and who can see them. Also, users should be able to turn off data sharing with third parties easily

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Inclusivity

Is your technology fair for everyone?

Will everyone have access to the technology?

Not everyone will have equal access to this technology. People who are not comfortable with using apps or those who cannot afford smart devices may face difficulties. Elderly users or individuals in low-income communities might find it hard to install or use the ring doorbell.

Does this technology have a built-in bias?

Technology itself may not have explicit built-in bias, but it can be used in biased ways by individuals, for example by disproportionately monitoring certain ethnic or social groups.

Does this technology make automatic decisions and how do you account for them?

Yes the technology makes automatic decisions through motion detection and facial recognition. These decisions are based on algorithms, but the user cannot fully control or understand how they work

Is everyone benefitting from the technology or only a a small group?

Do you see this as a problem? Why/why not?

While the Ring doorbell brings security and convenience to users, especially those with smart homes, elderly users and people in low-income communities may struggle to access or operate the technology, leading to a digital divide.

Does the team that creates the technology represent the diversity of our society?

Its not always clear who is behind the development of the product, but diversity in the development team is important

Now that you have thought hard about the inclusivity of the technology, what improvements would you like to make? List them below.

1. Make the app interface easier to use, especially for older people or those who are not good with technology
2. Add support for more local languages in the app
3. Offer a more affordable or basic version for people with lower income

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Transparency

Are you transparent about how your technology works?

Is it explained to the users/stakeholders how the technology works and how the business model works?

Although the app provides privacy settings, most users are not clearly informed about how their data is processed or monetised, making the system insufficiently transparent

If the technology makes an (algorithmic) decision, is it explained to the users/stakeholders how the decision was reached?

No users usually receive a notification, but it does not explain how or why the decision (like a motion alert) was triggered.

Is it possible to file a complaint or ask questions/get answers about this technology?

from my experience yes, users can contact customer support via the website or app, but it is not a quick or direct process for regular users to give feedback or challenge a decision

Is the technology (company) clear about possible negative consequences or shortcomings of the technology?

No, potential risks such as privacy concerns or third-party data access are not openly communicated to users

Now that you have thought hard about the transparency of this technology, what improvements would you like to make? List them below.

1. Add a simple section in the app or website that explains how the ring works and how user data is used
2. Include clear reasoning in notifications when the device takes action (for example, why a motion alert was triggered)
3. Build an easy complaint/feedback form in the app for users to report issues or concerns

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Sustainability

Is your technology environmentally sustainable?

In what way is the direct and indirect energy use of this technology taken into account?

The device uses energy only when activated, like during motion detection or recording. However, it still uses some standby power. Users are not clearly informed about total energy consumption

Do you think alternative materials could have been considered in the technology?

Yes, using recycled plastic or eco-friendly materials for the casing would make the device more sustainable

Do you think the lifespan of the technology is realistic?

The lifespan seems short if the battery wears out quickly or if software updates stop. A longer-lasting battery and ongoing support would be better

What is the hidden impact of the technology in the whole chain?

There may be hidden impacts during production, like energy usage in manufacturing. Also, disposal of the device may lead to electronic waste if its not recyclable.

Now that you have thought hard about the sustainability of this technology, what improvements would you like to make? List them below.

1. Use the recyclable materials in the casing
2. Add info in the app showing total energy usage
3. offer battery recycling programs or allow easy battery replacement

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Future

Did you consider future impact?

What could possibly happen with this technology in the future?

In the future, ring doorbells could be used by millions of people worldwide. This might lead to stronger neighborhood security, faster emergency responses, and better monitoring. But it could also increase concerns about privacy, data sharing, and constant surveillance.

Sketch a or some future scenario (s) (20-50 years up front) regarding the technology with the help of storytelling. Start with at least one utopian scenario.

Imagine a world where all homes use smart doorbells like ring. The devices are connected to a central safety network. If something suspicious happens, nearby homes are instantly notified. Crime rates are very low, and residents feel safe and protected. The system uses green energy and protects user privacy by design.

Sketch a or some future scenario (s) (20-50 years up front) regarding the technology with the help of storytelling. Start with at least one dystopian scenario.

In the future, governments or companies use smart doorbells to monitor every move people make. Every visit, delivery, or conversation at the door is recorded. People feel watched all the time. Decisions are made using algorithms that are not transparent, and user data is sold to third parties.

Would you like to live in one of this scenario's? Why? Why not?

Yes, I would like to live in the utopian scenario. It offers more safety, quick responses in emergencies, and respects user privacy. It creates a smart, connected, and secure neighbourhood. I would not like to live in the dystopian scenario because it feels too controlled and invasive. Constant surveillance can make people uncomfortable and take away their sense of freedom.

What happens if the technology (which you have thought of as ethically well-considered) is bought or taken over by another party?

If the ring doorbell is bought by a new company, there is a risk they might change the privacy policies or use the data for commercial or political purposes. The ethical standards might drop, and users may no longer trust the technology. This could harm the reputation of the product and reduce its use.

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Impact Improvement: Now that you have thought hard about the future impact of the technology, what improvements would you like to make? List them below.

1. Create long-term privacy policies that protect users even if ownership changes
2. Allow users to decide how their data is shared in case of a company buyout
3. Keep transparency and ethical standards as part of the product, no matter who owns it in the future