

Social Media and Virginia Tech : Ripple Effects for Alerts and Warnings

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Midwest Disaster 2.0; January 21, 2009



Aims of the Presentation

- Discuss empirical research on SNS at Virginia Tech and Northern Illinois University
- Describe Campus Safety Recommendations
- Show Social Media and the Crisis Communications Cycle

Virginia Tech School Shooting

- April 16, 2007
- Blacksburg, VA
- Two events: 7:15 am & 9:30 am
- 1 shooter, 32 deaths, multiple casualties

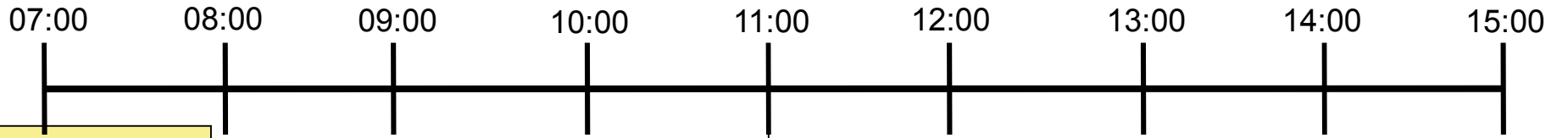
Vieweg, S., Palen, L., Liu, S.B., Hughes, A.L. and Sutton J. 2008. "Collective Intelligence in Disaster: Examination of the Phenomenon in the Aftermath of the 2007 Virginia Tech Shooting." *Proceedings of the Conference on Information Systems for Crisis Response and Management (ISCRAM)*.



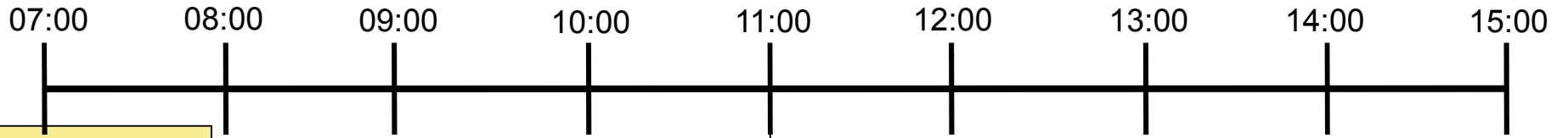


Research Concerns and Methods

- Social media
- Publicly available and on-line
- Social Science research methods



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1st Shooting
Reported (2
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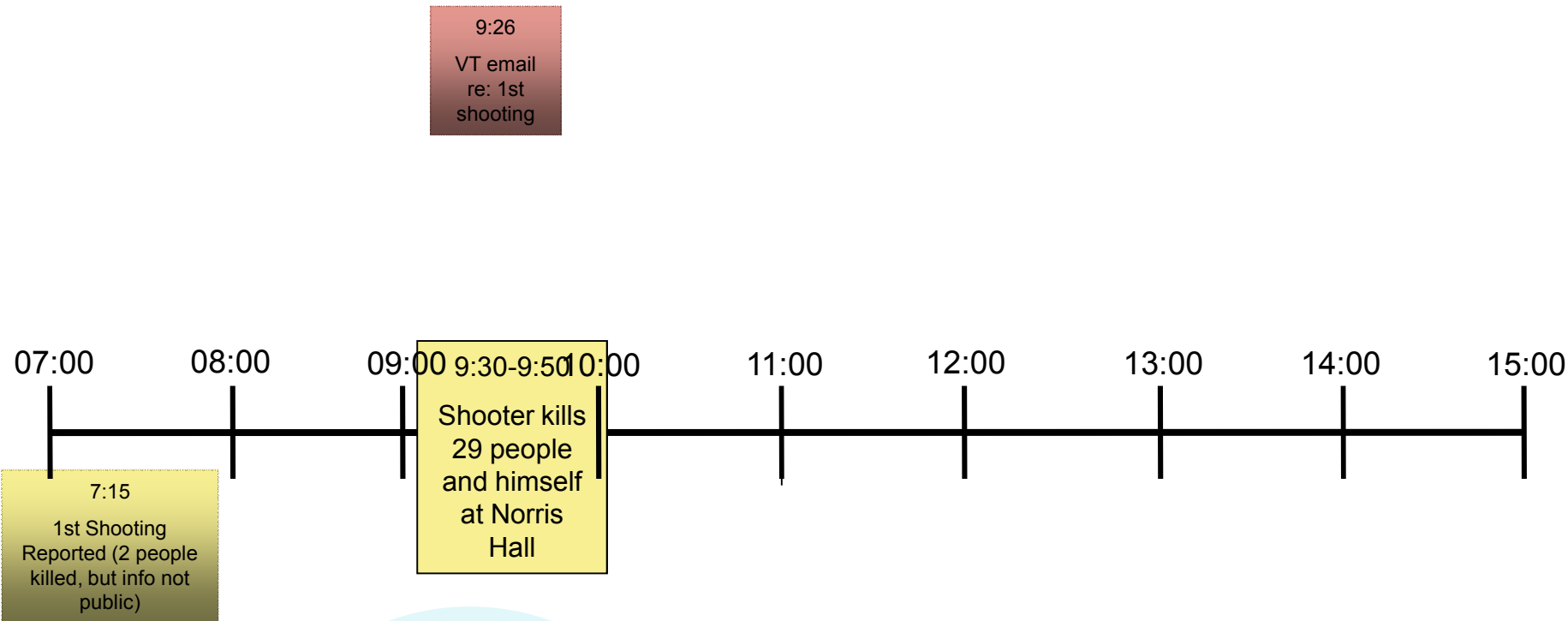
Field data shows that 8:30-10am was the time during which students contacted parents & vice versa through various media. These activities originate from first shooting but occur during second. Many students woken by calls from family. Initial sources of event information highly constrained in this crisis and come from just a few places.

07:00 08:00 09:00 10:00 11:00 12:00 13:00 14:00 15:00

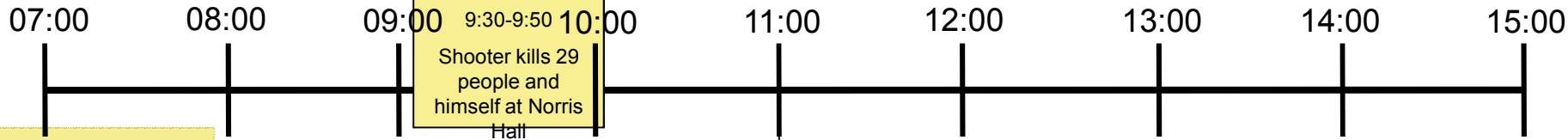
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9:26
VT email
re: 1st
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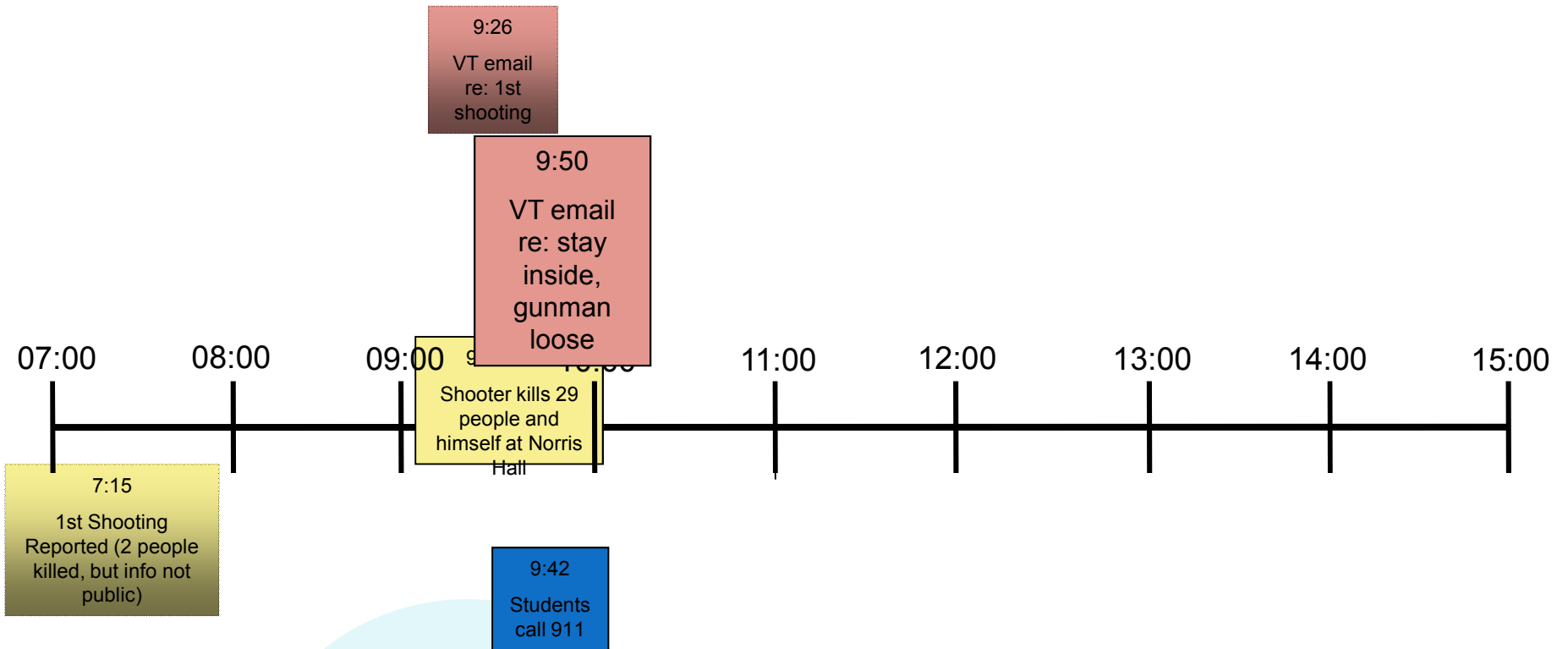
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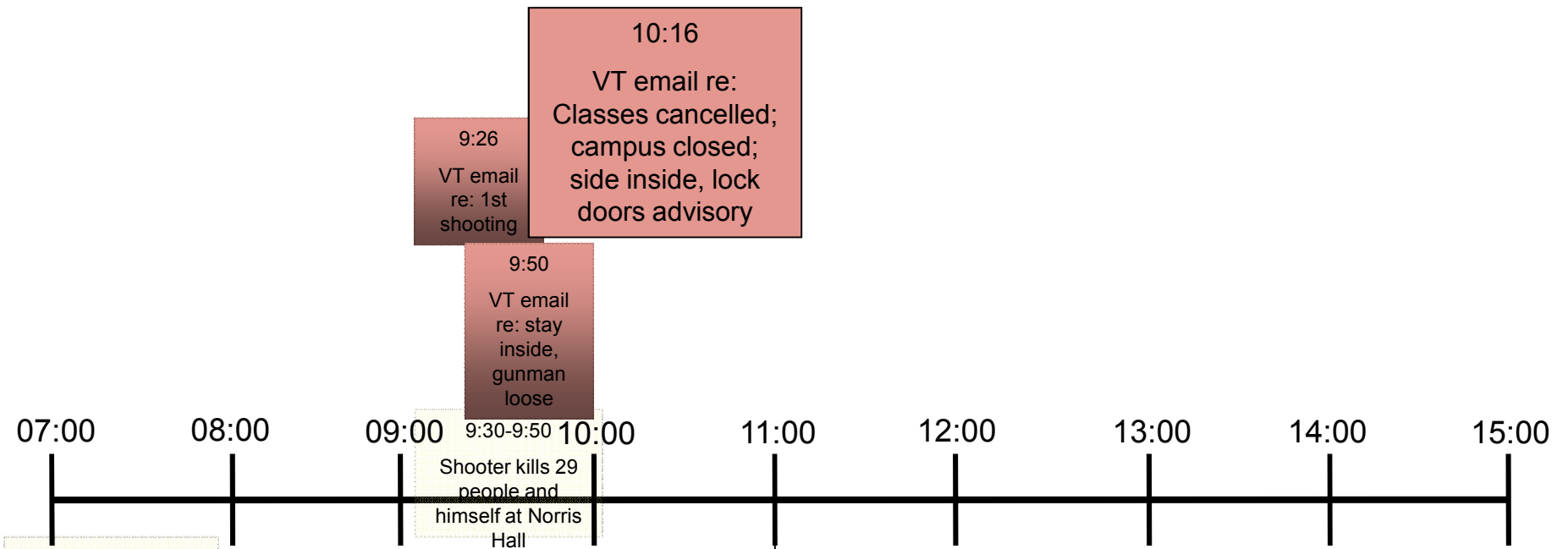
9:30-9:50
Shooter kills 29
people and
himself at Norris
Hall

9:42
Students
call 911

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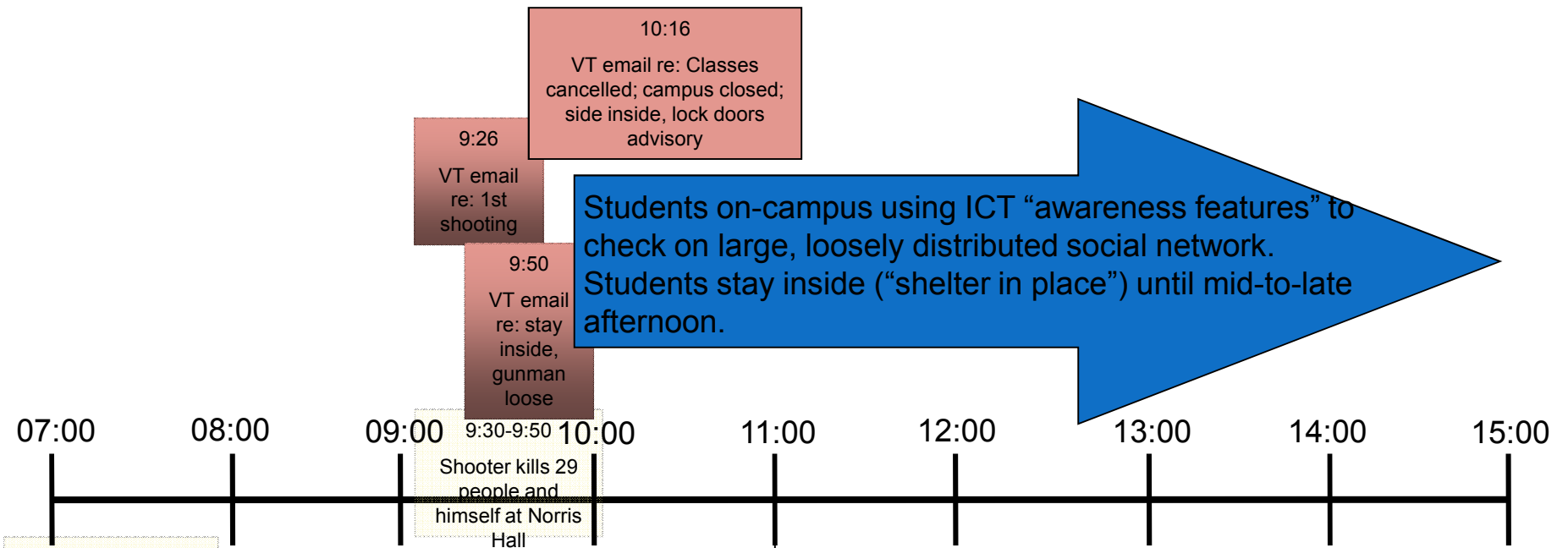


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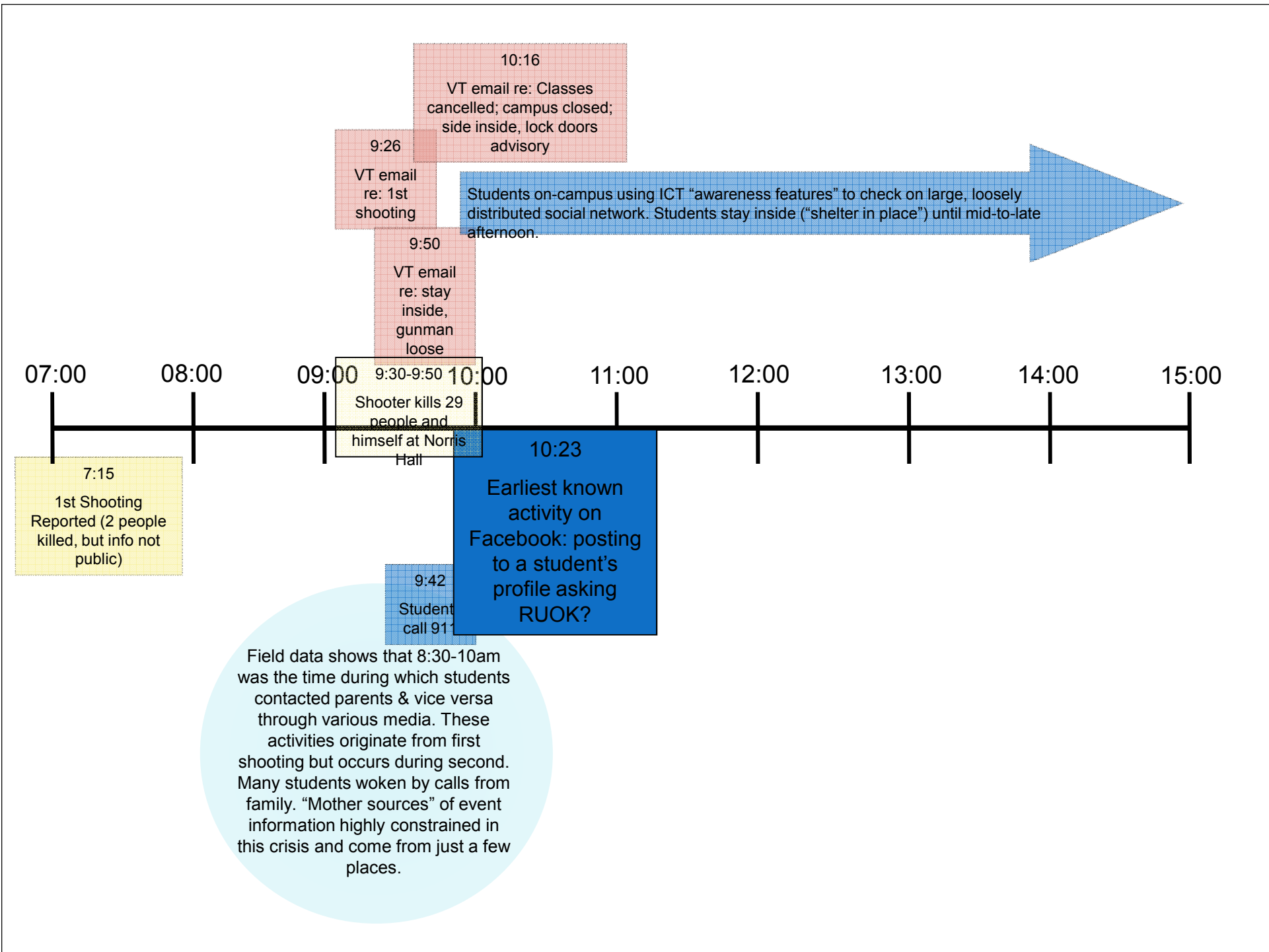
9:30-9:50
Shooter kills 29 people and himself at Norris Hall

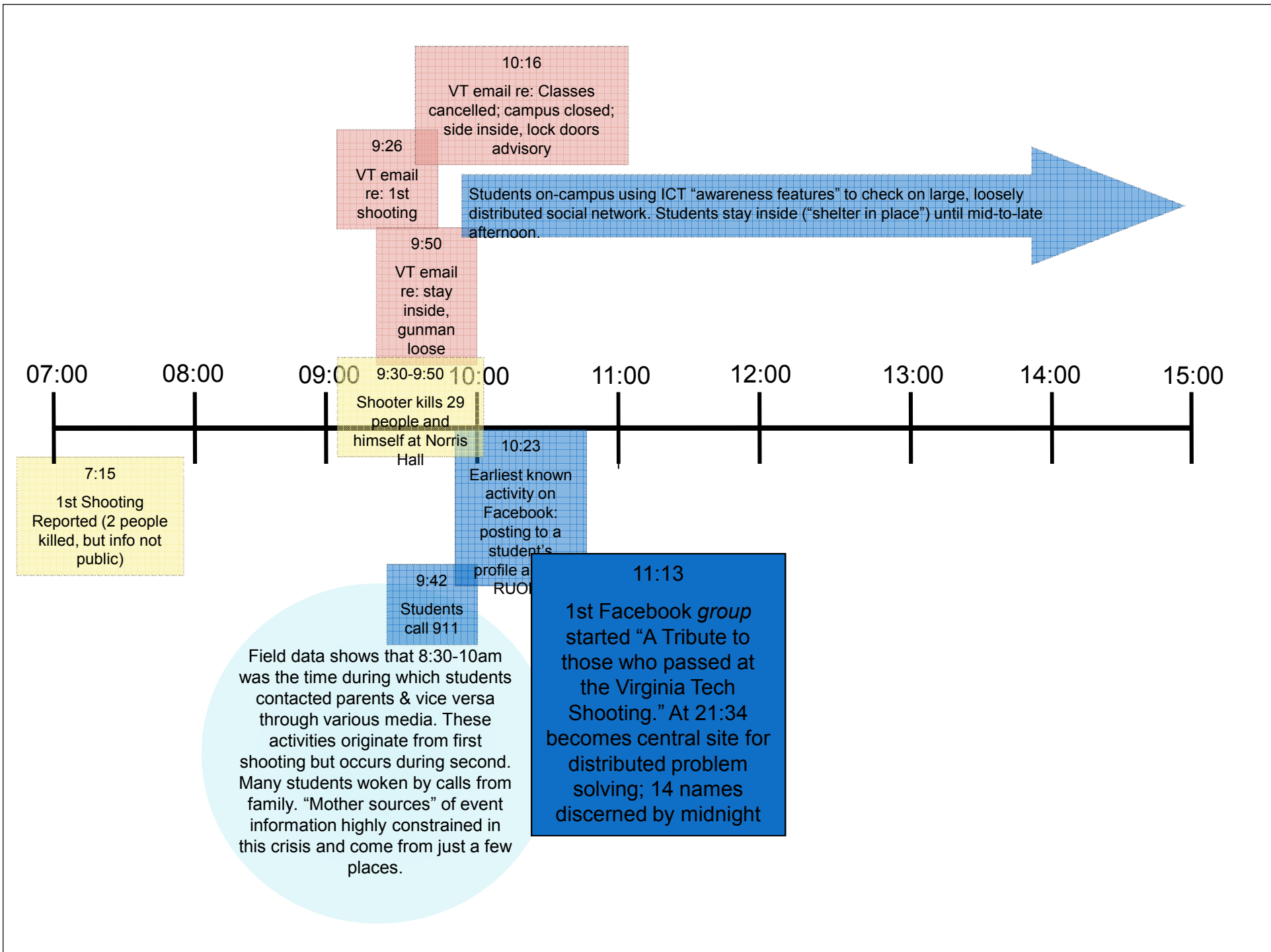
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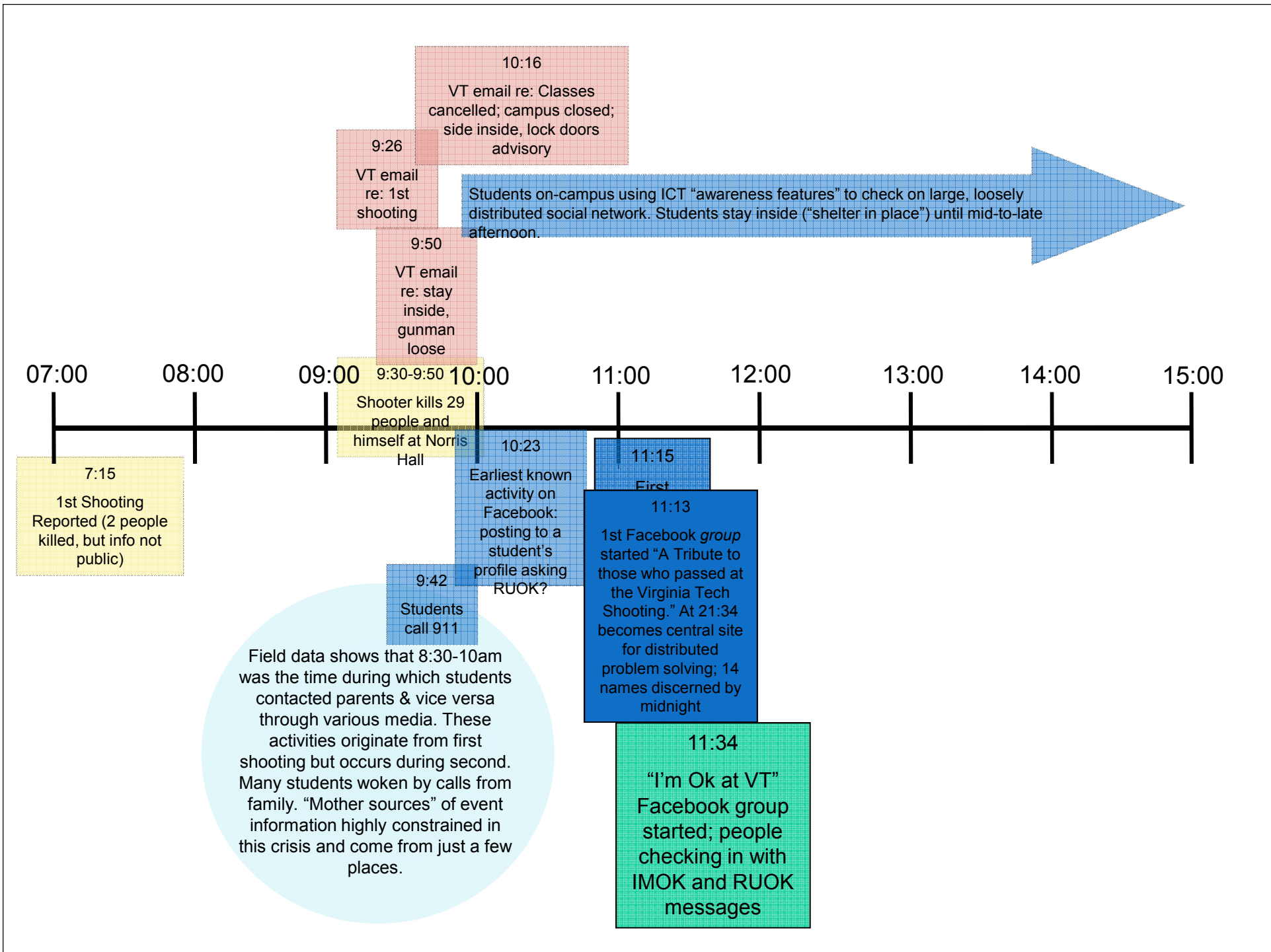
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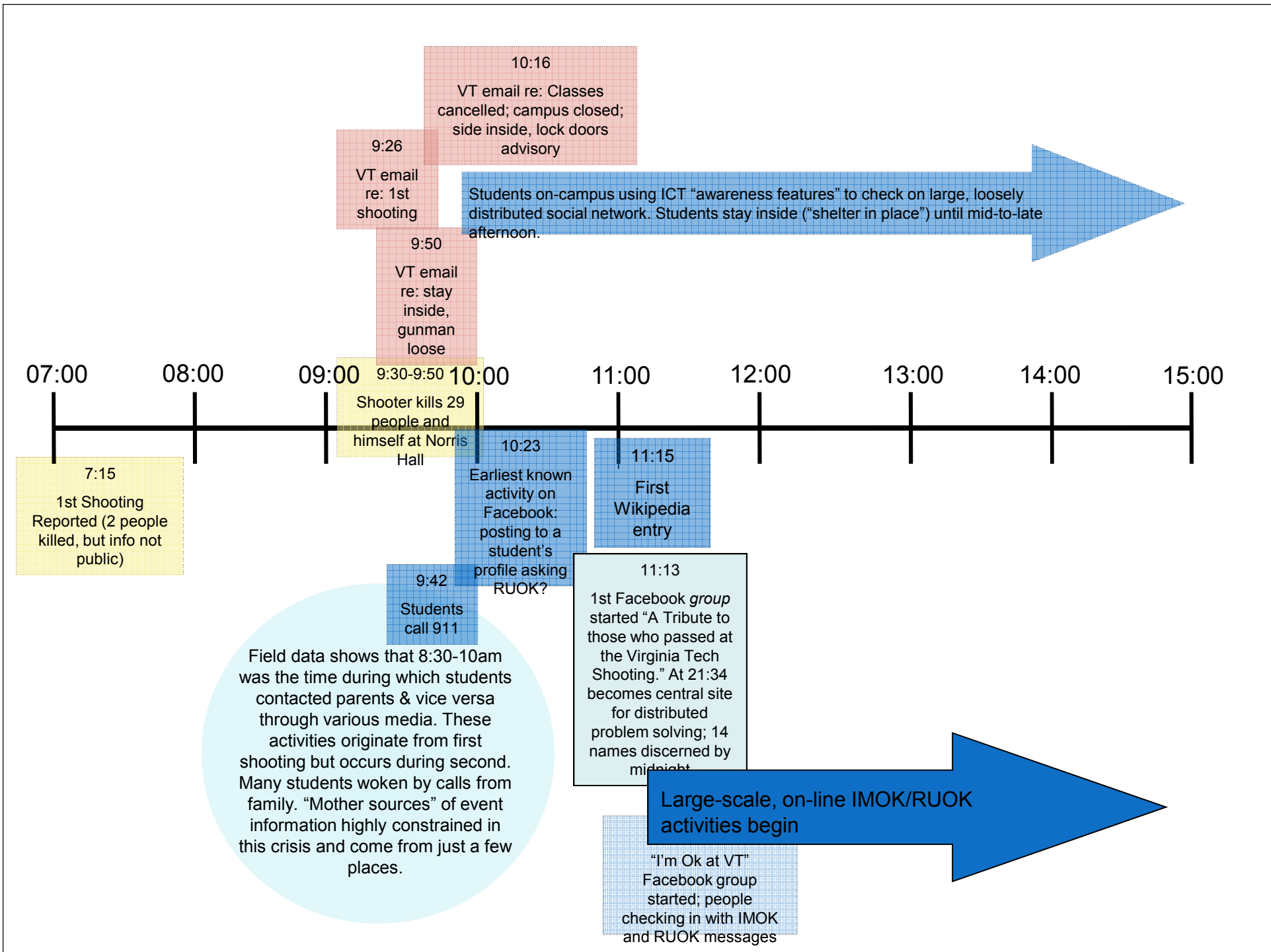


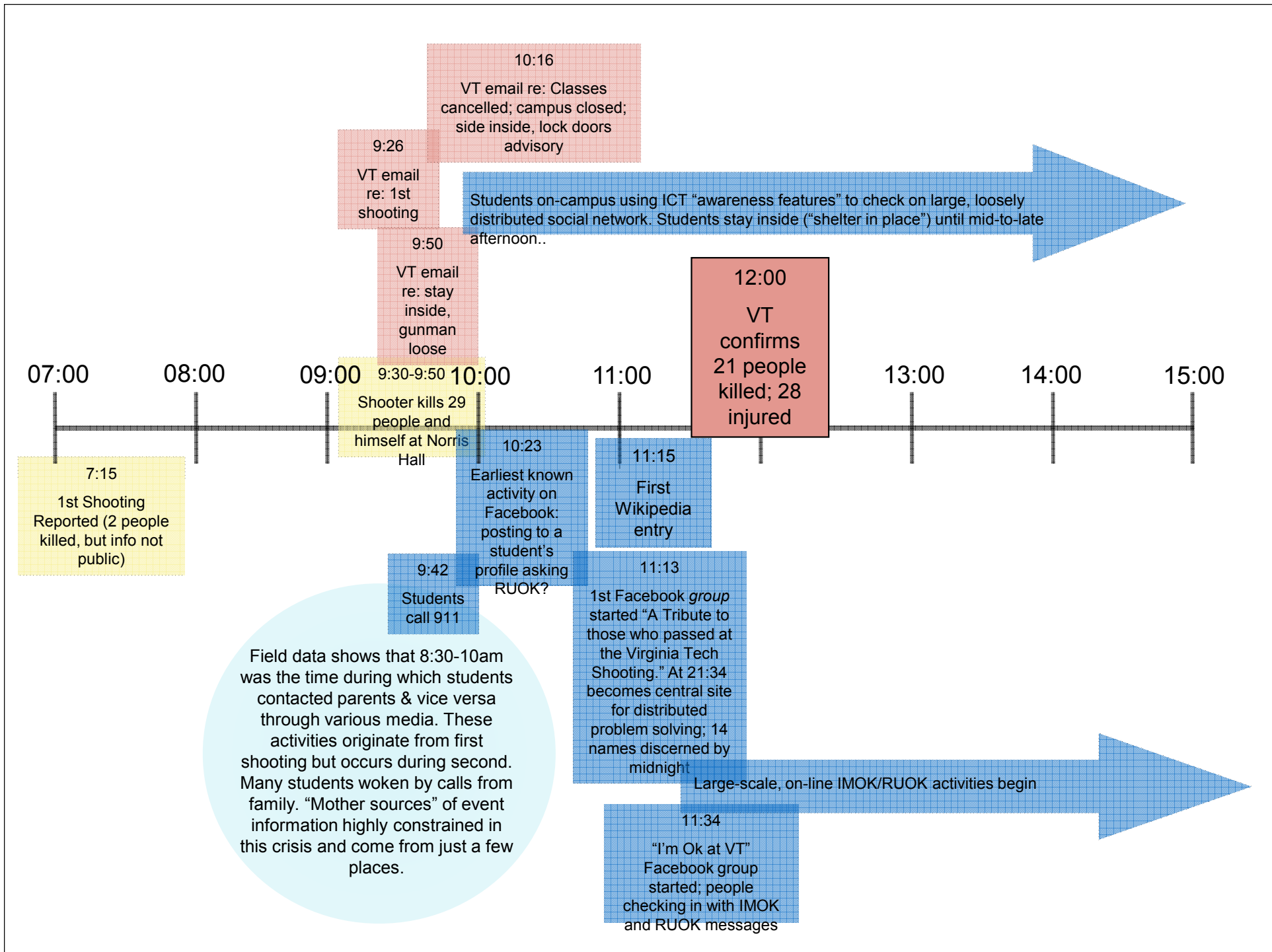
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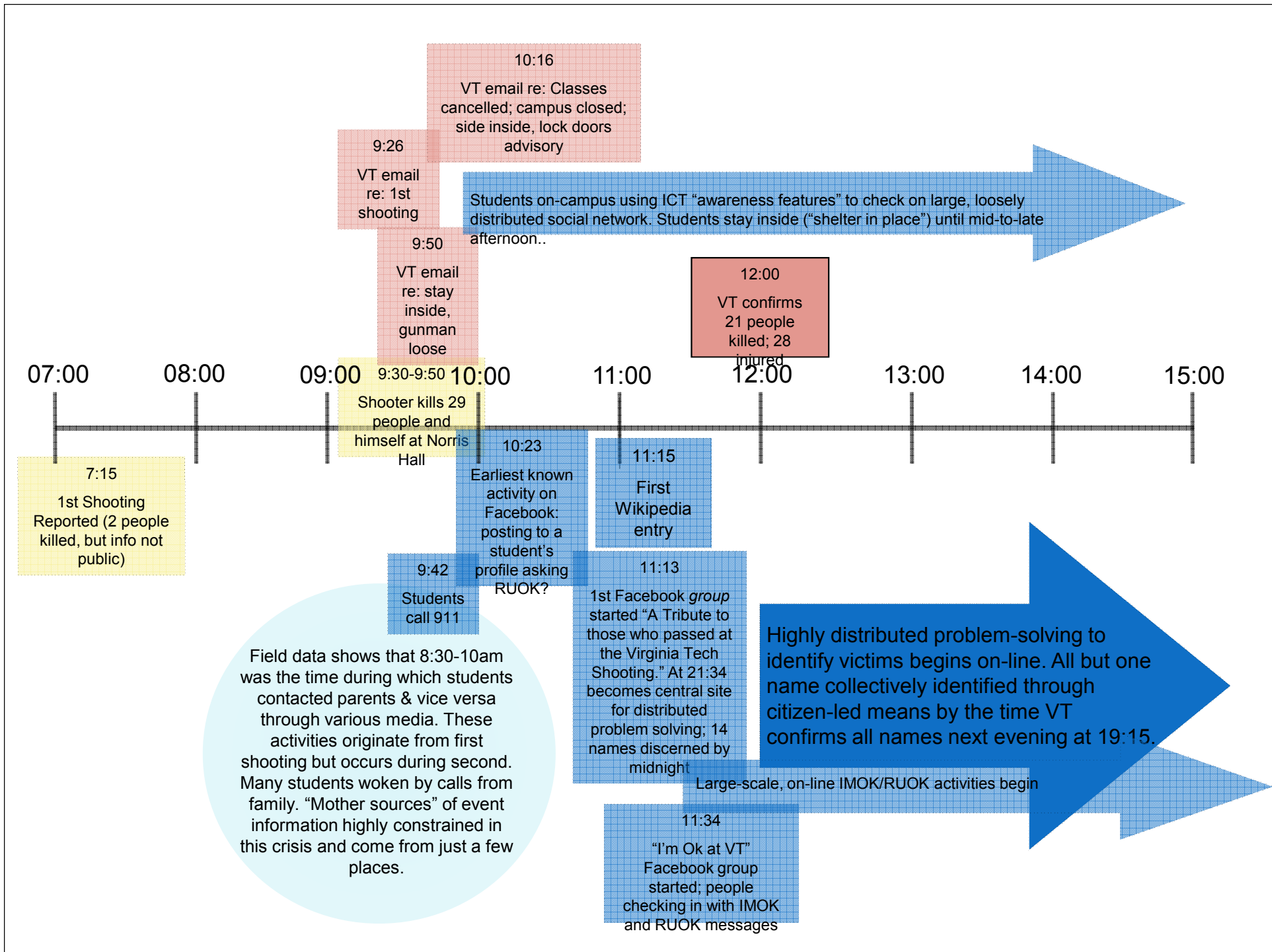


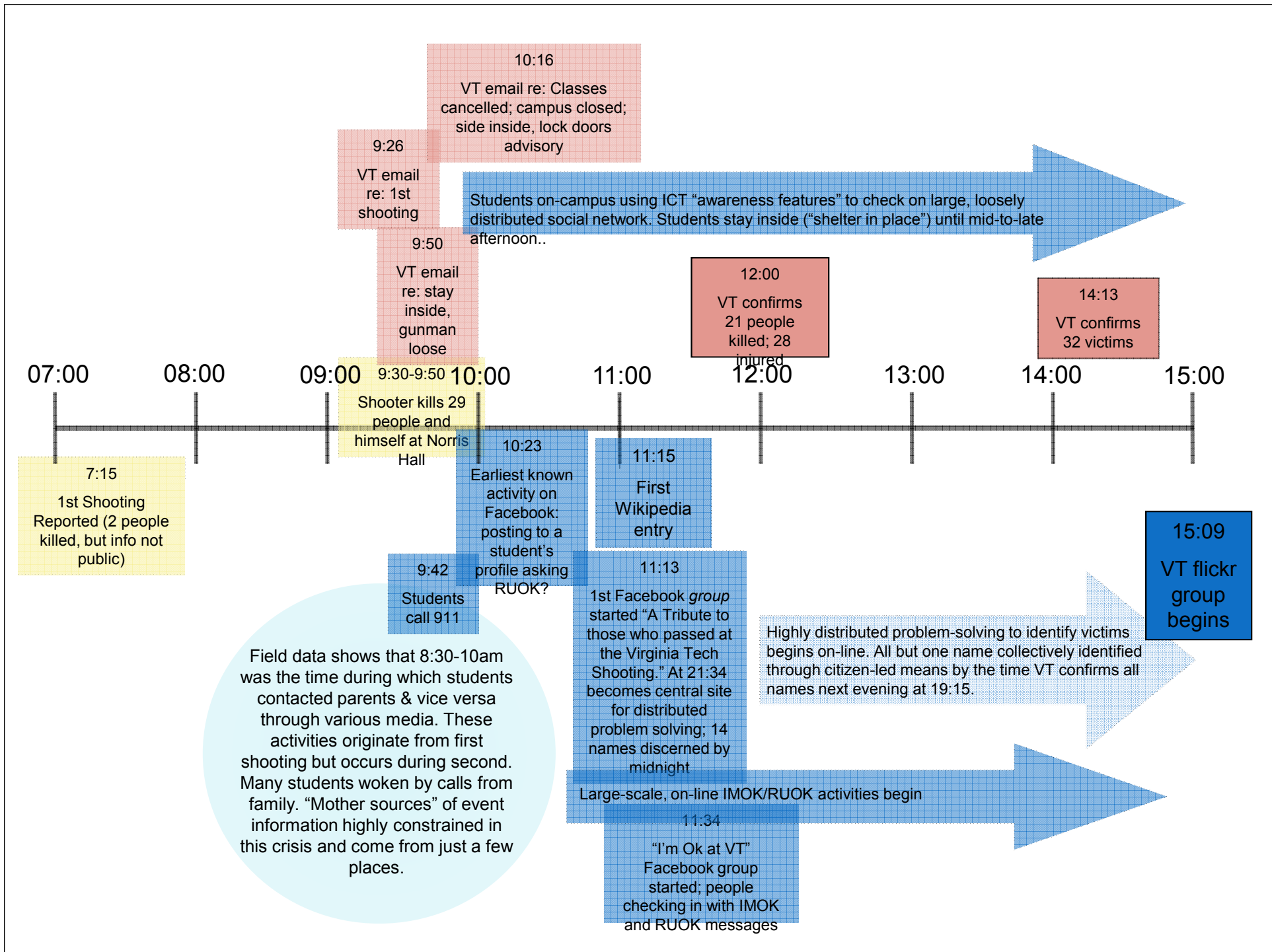














Collective Intelligence

- Emerging phenomenon
- Distributed, decentralized problem-solving
- Concentrated, well-intentioned, and earnest
- Socially distributed accuracy



NIU Shooting

- February 14, 2008
- Northern Illinois University (NIU), DeKalb, IL
- 1 shooter, 6 deaths
- Comparable research methods



Assistance, Alliance, Retreat

- Assistance - notable VT community participation in NIU SNS support
- Alliance – empathy, caretaking, guidance and instruction
- Retreat – regaining control in a public setting

Palen, L. and S. Vieweg. 2008. “The Emergence of Online Widescale Interaction in Unexpected Events: Assistance, Alliance, and Retreat.” *CSCW '08*, November 8-12, 2008, San Diego, CA.



School and Campus Safety

- Preventing Violence
 - Threat assessment
 - Referral and information sharing
- Preparation and Response to Violence
 - Emergency plans
 - Upgrading crisis communication systems for college campuses (emergency notification systems)
 - Text messaging, web-based distributed messaging
 - Multi-point, redundant communication system

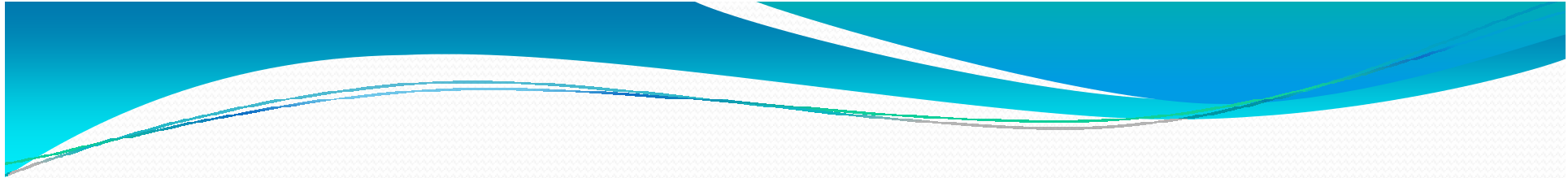
National Association of Attorneys General: Task Force on School and Campus Safety. September 2007. Report and Recommendations.



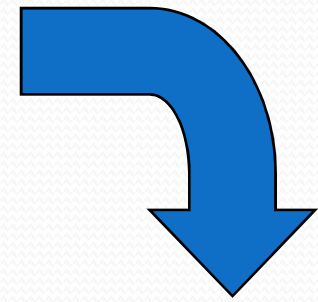
Ripple Effects

Midwestern Higher Education Compact. May 2008. *The Ripple Effect of Virginia Tech: Assessing the Nationwide Impact on Campus Safety and Security Policy and Practice.*

- 331 institutions surveyed
- Emergency Notification Systems
 - 75% of survey respondents whose institutions did not previously possess notification systems that enable **text messages to student phones** planned to acquire such systems.
 - Less than 10% of survey respondents plan to acquire or implement broadcast messages to **SNS accounts**.

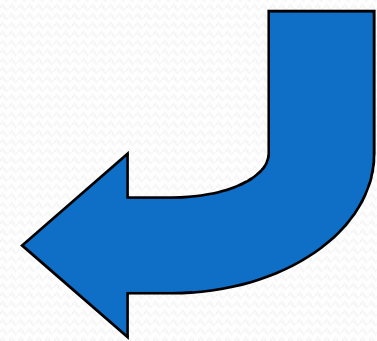


**Warning/
Notification**

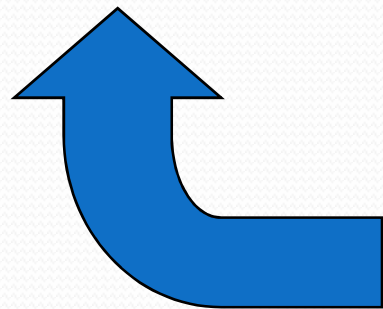


Confirmation

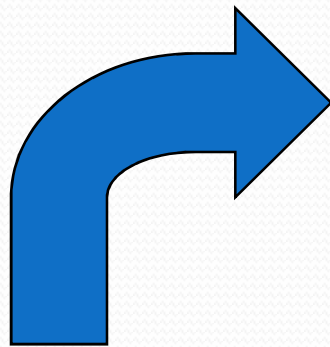
**Communication
Cycle**



**Ongoing
conversation**



**Monitoring/
Detection**





Monitoring and Detection

- Social media as trigger of crises
 - Public Relations
 - Rumor and Misinformation
 - Impending Hazards/Risks
- Social media as facilitator of crises
 - Two way interactive communications
 - Multi-party networked communications



Warning and Notification

- Rapid response is necessary
- Students, faculty, staff, local public are likely to know about event before you notify them
- Use all media available



Confirmation

- Welfare checks for students, employees
- Status of networked facilities
- Availability of resources and supplies



Ongoing Conversation

- Informal communications
 - Intensified information seeking; milling, collective intelligence
- Internal communications
 - Closed internal networks for campus community
 - Closed networks for emergency response community
- External communications with public at large



Other effects

- Disaster relief/donations/mobile giving
- More than just giving money – collective intelligence, collective activity
- Public-centric perspective

Questions? Comments? Feedback?

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**Center for New Media
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